Chapter 600 Parts, Form and Content of Application

601 Content of Application

37 CFR 1.51. General requisities of an application. (a) Applications for patents must be made to the Commissioner of Patents and Trademarks. A complete application comprises:

(1) A specification, including a claim or claims, see §§ 1.71 to 1.77.

(2) An oath or declaration, see §§ 1.65 to 1.68.

(3) Drawings, when necessary, see §§ 1.81 to 1.88.

(4) The prescribed filing fee. (See 35 U.S. 41 for filing fees.)

(b) Applicants are encouraged to file a prior art statement at the time of filing the application or within three months thereafter. See §§ 1.97 through 1.99.

35 U.S.C. 111. *Application for patent.* Application for patent shall be made by the inventor, except as otherwise provided in this title, in writing to the Commissioner. Such application shall include: (1) a specification as prescribed by section 112 of this title; (2) a drawing as prescribed by section 113 of this title; and (3) an oath by the applicant as prescribed by section 115 of this title. The application must be signed by the applicant and accompanied by the fee required by law.

Guidelines for Drafting A Model Patent Application

The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement and Contents of the Specification

The following order of arrangement is preferable in framing the specification and, except for the title of the invention, each of the lettered items should be preceded by the headings indicated.

(a) Title of the Invention.
(b) Cross-References to Related Applications (if any).
(c) Statement as to rights to inventions made under Federally-sponsored research and development (if any).
(d) Background of the Invention.
1. Field of the Invention.
2. Description of the Prior Art.

(e) Summary of the Invention.
(f) Brief Description of the Drawing.
(g) Description of the Preferred Embodiment(s).
(h) Claim(s).
(i) Abstract of the Disclosure.

(a) *Title of the Invention:* (See § 1.72(a).) The title of the invention should be placed at the top of the first page of the specification. It should be brief but technically accurate and descriptive preferably from two to seven words.

(b) *Cross-References to Related Applications:* (See 37 CFR 1.78 and § 201.11.)

(c) *Statement as to rights to inventions made under Federally sponsored research and development (if any):* (See § 310).

(d) *Background of the Invention:* The specification should set forth the Background of the Invention in two parts:

(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions. The statement should be directed to the subject matter of the claimed invention. This item may also be titled "Technical Field".

(2) Description of the Prior Art: A paragraph(s) describing to the extent practical the state of the prior art known to the applicant, including references to specific prior art where appropriate. Where applicable, the problems involved in the prior art, which are solved by the applicant's invention, should be indicated. This item may also be titled "Background Art".

(e) *Summary:* A brief summary or general statement of the invention as set forth in § 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention. This item may also be titled "Disclosure of Invention".

(f) *Brief Description of the Drawing(s):* A reference to and brief description of the drawing(s) as set forth in § 1.74.

(g) *Description of the Preferred Embodiment(s):* A description of the preferred embodiment(s) of the invention as required in § 1.71. The description should be as short and specific as is necessary to adequately and accurately describe the invention. This item may also be titled "Best Mode for Carrying Out the Invention".

Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field to which the invention pertains, form a part of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

(h) *Claim(s):* (See 37 CFR 1.75) A claim may be typed with the various elements subdivided in paragraph form. There may be plural indentations to further segregate subcombinations or related steps.

Reference characters corresponding to elements recited in the detailed description and the drawings may be used in conjunction with the recitation of the same element or group of elements in the claims. The reference characters, however, should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. The use of reference characters is to be considered as having no effect on the scope of the claims.

Claims should preferably be arranged in order of scope so that the first claim presented is the broadest. Where separate species are claimed, the claims of like species should be grouped together where possible and physically separated by drawing a line between claims or groups of claims. (Both of these provisions may not be practical or possible where several species claims depend from the same generic claim.) Similarly, product and process claims should be separately grouped. Such arrangements are for the purpose of facilitating classification and examination.

The form of claim required in 37 CFR 1.75 (e) is particularly adapted for the description of improvement type inventions. It is to be considered a combination claim and should be drafted with this thought in mind.

In drafting claims in accordance with 37 CFR 1.75(e), the preamble is to be considered to positively and clearly include all the elements or steps recited therein as a part of the claimed combination.

(i) *Abstract of the Disclosure:* (See 37 CFR 1.72(b) and § 608.01(b).

Oath or Declaration

(See 37 CFR 1.65, 1.68, 1.69 and 1.70.) Where one or more previously filed foreign applications are cited or mentioned in the oath or declaration, complete identifying data, including the application or serial number as well as the country and date of filing, should be provided.

The Application

The specification must be in the English language and must be legibly typewritten, written or printed in permanent ink or its equivalent in quality. See 37 CFR 1.52 and § 608.01.

The parts of the application may be included in a single document, and an approved single-signature form may be used.

Determination of completeness of an application is covered in § 506.

The specification and oath or declaration are secured together in a file wrapper, bearing appropriate identifying data including the serial number and filing date (§ 717).

Note

Division applications § 201.06.
Continuation applications § 201.07.
Reissue applications § 1401.
Design applications, Chapter 1500.
Plant applications, Chapter 1600.

A model, exhibit or specimen is not required as part of the application as filed, although it may be required in the prosecution of the application (§§ 1.91–1.93, 608.03).

37 CFR 1.59. Papers of complete application not to be returned. **Papers in a complete application, including the drawings, will not be returned for any purpose whatever. If applicants have not preserved copies of the papers, the Office will furnish copies at the usual cost.**

See, however, § 604.04(a).

The Patent and Trademark Office has initiated a program for expediting newly filed application papers through pre-examination steps. This program requires the cooperation of applicants in order to attain the desired result—a reduction in processing time.

Therefore, all applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand corner of the letter of transmittal

accompanying the application papers, for example "Proposed class 2, subclass 129."

This program is voluntary and the classification submitted will be accepted as advisory in nature. The final class and subclass assignment remains the responsibility of the Office.

601.02 Power of Attorney or Authorization of Agent

The attorney's or agent's full post office address (including ZIP code number) must be given in every power of attorney or authority of agent. The telephone number of the attorney or agent should also be included in the power. The prompt delivery of communications will thereby be facilitated.

Usually a power of attorney or authorization of agent is incorporated in the single signature form. (See §§ 402 and 605.04(a).)

601.03 Change of Correspondence Address

Where an attorney or agent of record (or applicant, if he is prosecuting his application pro se) changes his correspondence address, he is responsible for promptly notifying the Patent and Trademark Office of his new correspondence address (including Zip Code number). The notification should also include his telephone number.

A separate notification must be filed in each application for which he is intended to receive communications from the Office. In those instances where a change in the correspondence address of a registered attorney or agent is necessary in a plurality of applications, the notification filed in each application may be a reproduction of a properly executed, original notification. The original notice may be sent to the Office of the Solicitor as notification to the Attorney's Roster of the change of address, or may be filed in one of the applications affected, provided that the notice includes an authorization for the public to inspect and copy the original notice in the event one of the applications containing a copy matures into a patent and the application containing the original paper is either pending or has become abandoned. The copies submitted in each affected application must identify where the original paper is located.

See § 711.03(c) for treatment of petitions to revive applications abandoned as a consequence of failure to timely receive an Office action addressed to the old correspondence address.

The notification required need take no particular form. However, it should be provided in a manner calling attention to the fact that a change of address is being made. Thus, the mere inclusion, in a paper being filed for another purpose, of an address which is different from the previously provided correspondence address, without mention of the fact that an address change is being made would not ordinarily be recognized or deemed as instructions to change the address on the file record.

The obligation (see 37 CFR 1.347) of a registered attorney or agent to notify the Attorney's Roster by letter of any change of his address for entry on the register, is separate from the obligation to file a notice of change of address filed in individual applications. See § 402.

601.04 National Stage Requirements of the United States as a Designated Office.

35 U.S.C. 371. National stage: Commencement

(a) Receipt from the International Bureau of copies of international applications with amendments to the claims, if any, and international search reports is required in the case of all international applications designating the United States, except those filed in the Patent Office.

(b) Subject to subsection (f) of this section, the national stage shall commence with the expiration of the applicable time limit under article 22 (1) or (2) of the treaty, at which time the applicant shall have complied with the applicable requirements specified in subsection (c) of this section.

(c) The applicant shall file in the Patent Office—

(1) the national fee prescribed under section 376 (a)(4) of this part;

(2) a copy of the international application, unless not required under subsection (a) of this section or already received from the International Bureau, and a verified translation into the English language of the international application, if it was filed in another language;

(3) amendments, if any, to the claims in the international application, made under article 19 of the treaty, unless such amendments have been communicated to the Patent Office by the International Bureau, and a translation into the English language if such amendments were made in another language;

(4) an oath or declaration of the inventor (or other person authorized under chapter 11 of this title) complying with the requirements of section 115 of this title and with regulations prescribed for oaths or declarations of applicants.

(d) Failure to comply with any of the requirements of subsection (c) of this section, within the time limit provided by article 22 (1) or (2) of the treaty shall result in abandonment of the international application.

(e) After an international application has entered the national stage, no patent may be granted or refused thereon before the expiration of the applicable time limit under article 28 of the treaty, except with the express consent of the applicant. The applicant may present amendments to the specification, claims, and

drawings of the application after the national stage has commenced.

(f) At the express request of the applicant, the national stage of processing may be commenced at any time at which the application is in order for such purpose and the applicable requirements of subsection (c) of this section have been complied with.

35 U.S.C. 372. National stage: Requirements and procedure

(a) All questions of substance and, within the scope of the requirements of the treaty and Regulations, procedure in an international application designating the United States shall be determined as in the case of national applications regularly filed in the Patent Office.

(b) In the case of international applications designating but not originating in, the United States—

"(1) the Commissioner may cause to be reexamined questions relating to form and contents of the application in accordance with the requirements of the treaty and Regulations;

"(2) the Commissioner may cause the question of unity of invention to be reexamined under section 121 of this title, within the scope of the requirements of the treaty and the Regulations.

(c) Any claim not searched in the international stage in view of a holding, found to be justified by the Commissioner upon review, that the international application did not comply with the requirement for unity of invention under the treaty and the Regulations, shall be considered canceled, unless payment of a special fee is made by the applicant. Such special fee shall be paid with respect to each claim not searched in the international stage and shall be submitted not later than one month after a notice was sent to the applicant informing him that the said holding was deemed to be justified. The payment of the special fee shall not prevent the Commissioner from requiring that the international application be restricted to one of the inventions claimed therein under section 121 of this title, and within the scope of the requirements of the treaty and the Regulations.

35 U.S.C. 373. Improper applicant. An international application designating the United States, shall not be accepted by the Patent Office for the national stage if it was filed by anyone not qualified under chapter 11 of this title to be an applicant for the purpose of filing a national application in the United States. Such international applications shall not serve as the basis for the benefit of an earlier filing date under section 120 of this title in a subsequently filed application, but may serve as the basis for a claim of the right of priority under section 119 of this title, if the United States was not the sole country designated in such international application.

37 CFR 1.61. Filing of applications in the United States of America as a Designated Office.

(a) To maintain the benefit of the international filing date and obtain an examination as to the patentability of the invention in the United States, the applicant shall furnish to the U.S. Patent and Trademark Office not later than the expiration of 20 months from the priority date: (1) A copy of the international application with any amendments, unless it has been previously furnished by the International Bureau or unless it was originally filed in the U.S. Patent and Trademark Office; (2) a verified translation of the international application and a translation of any amendments into the English language, if originally filed elsewhere in another language; (3) the national fee (see § 1.445(a)(4)); and (4) an oath or declaration of the inventor (see § 1.70).

(b) Where an International Searching Authority has made a declaration that no international search report will be established because of the international application relates to the subject matter which it is not required to search, or because the application fails to comply with the prescribed requirements to such an extent that a meaningful search could not be carried out, the time for performing the acts referred to in paragraph (a) of this section is 2 months from the mailing date of the declaration to the applicant.

The United States national stage commencement requirements are set forth in 35 U.S.C. 371 and 372. In order to retain his or her international filing date and enter the national stage in the United States, and unless the international application was filed in the United States Receiving Office or already received from the International Bureau, the applicant must file in the U.S. Patent and Trademark Office the following items:

(i) a copy of the international application and a verified English translation thereof, if necessary,

(ii) a copy of any amendments to the claims which were made before the International Bureau and an English translation thereof, if necessary,

(iii) an oath or declaration of the inventor(s), and

(iv) the national filing fee.

The applicant must submit these items not later than at the expiration of 20 months from the priority date (35 U.S.C. 371(d) and PCT Article 22). At 20 months the applicant may also file a prior art statement.

After filing, the applicant has the right to amend his application before the Designated Office within one month after entry into the national stage. It should be noted that the time limits referred to in the preceding paragraph apply irrespective of whether the international search report is available.

The time limit (20 months from the priority date) indicated above, expires earlier where the International Searching Authority makes a declaration to the effect that no international search report will be established; such a declaration is notified to the applicant by the International

Searching Authority; the time limit is then two months from the date of the notification of the said declaration sent to the applicant (PCT Article 22(2) and PCT Rule 44.1).

602 Original Oath or Declaration

35 U.S.C. 25. Declaration in lieu of oath

(a) The Commissioner may by rule prescribe that any document to be filed in the Patent and Trademark Office and which is required by any law, rule, or other regulation to be under oath may be subscribed to by a written declaration in such form as the Commissioner may prescribe, such declaration to be in lieu of the oath otherwise required.

(b) Whenever such written declaration is used, the document must warn the declarant that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001).

35 U.S.C. 26. Effect of defective execution

Any document to be filed in the Patent and Trademark Office and which is required by any law, rule, or other regulation to be executed in a specified manner may be provisionally accepted by the Commissioner despite a defective execution, provided a properly executed document is submitted within such time as may be prescribed.

35 U.S.C. 115. Oath of applicant

The applicant shall make oath that he believes himself to be the original and first inventor of the process, machine, manufacture, or composition of matter, or improvement thereof, for which he solicits a patent; and shall state of what country he is a citizen. Such oath may be made before any person within the United States authorized by law to administer oaths, or, when made in a foreign country, before any diplomatic or consular officer of the United States authorized to administer oaths, or before any officer having an official seal and authorized to administer oaths in the foreign country in which the applicant may be, whose authority shall be proved by certificate of a diplomatic or consular officer of the United States, and such oath shall be valid if it complies with the laws of the state or country where made. When the application is made as provided in this title by a person other than the inventor, the oath may be so varied in form that it can be made by him.

37 CFR 1.65 Oath or declaration. (a)(1) The applicant, if the inventor, must state that he verily believes himself to be the original and first inventor or discoverer of the process, machine, manufacture, composition of matter, or improvement thereof, for which he solicits a patent; that he does not know and does not believe that the same was ever known or used in the United States before his invention or discovery thereof, and shall state of what country he is a citizen and where he resides, and whether he is a sole or joint inventor of the invention claimed in his application. In every original application the applicant must distinctly state that to the best of his knowledge and belief the invention has not been in public use or on sale in the United States more than one year prior to his application or patented or described in any printed publication in any country before his invention or more than one year prior to his application, or patented or made the subject of an inventor's certificate in any foreign country prior to the date of his application on an application filed by himself or his legal representatives or assigns more than twelve months prior to his application in this country. He must acknowledge a duty to disclose information he is aware of which is material to the examination of the application. He shall state whether or not any application for patent or inventor's certificate on the same invention has been filed in any foreign country, either by himself or by his legal representatives or assigns. If any such application has been filed, the applicant shall name the country in which the earliest such application was filed, and shall give the day, month, and year of its filing; he shall also identify by country and by day, month, and year of filing, every such foreign application filed more than twelve months before the filing of the application in this country.

(2) This statement (i) must be subscribed to by the applicant, and (ii) must either (a) be sworn to (or affirmed) as provided in § 1.66 or (b) include the personal declaration of the applicant as prescribed in § 1.68. See § 1.153 for design cases and § 1.162 for plant cases.

(b) If the application is made as provided in §§ 1.42, 1.43 or 1.47 the applicant shall state his relationship to the inventor and, upon information and belief, the facts which the inventor is required by this rule to state.

(c) An additional statement may be required if the application has not been filed in the Patent and Trademark Office within a reasonable time after execution of the original statement.

37 CFR 1.68. Declaration in Lieu of Oath. Any document to be filed in the Patent and Trademark Office and which is required by any law, rule, or other regulation to be under oath may be subscribed to by a written declaration with the exception of testimony relating to interferences and other contested cases covered by §§ 1.271 to 1.286. Such declaration may be used in lieu of the oath otherwise required, if, and only if, the declarant is on the same document, warned that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001) and may jeopardize the validity of the application or any patent issuing thereon. The declarant must set forth in the body of the declaration that all statements made of his own knowledge are true and that all statements made on information and belief are believed to be true.

18 U.S.C. 1001. Statements or entries generally

Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or repre-

sentations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years, or both.

Oaths and declarations submitted in applications filed after May 1, 1975 must make reference to the prior filing or non-filing of applications for inventor's certificates.

A § 1.68 declaration need not be ribboned to the other papers, even if signed in a country foreign to the United States. When a declaration is used, it is unnecessary to appear before any official in connection with the making of the declaration. It must, however, since it is an integral part of the application, be maintained together therewith. Suggested forms for declarations are located in Part 3 of Title 37, Code of Federal Regulations.

By statute, 35 U.S.C. 25, the Commissioner has been empowered to prescribe instances when a written declaration may be accepted in lieu of the oath for "any document to be filed in the Patent and Trademark Office".

The filing of a written declaration is acceptable in lieu of an original application oath that is informal.

The applicant must state that no foreign applications have been filed, if such is the case. If all foreign applications have been filed within twelve months of the U.S. filing date, he or she is required only to recite the first such foreign application, and it should be clear that the foreign application referred to is the first filed foreign application. The applicant is required to recite all foreign applications filed more than twelve months prior to the U.S. filing. It is desirable to give the foreign serial number as well as the filing date of the first filed foreign application, especially if the inventor's name will not appear in a certified copy of said foreign application.

The single signature forms mentioned in § 605.04(a) include the oath or declaration.

In the oath, the jurat must be filled out, and the word "sole" or "only" must appear if there is but one inventor, and "joint" if two or more inventors.

When joint inventors execute separate oaths or declarations, each oath or declaration should make reference to the fact that the affiant is a joint inventor together with each of the other inventors indicating them by name. This may be done by stating that he or she does verily believe himself or herself to be the original, first and joint inventor together with "A or A & B, etc." as the facts may be.

A seal is usually impressed on an oath. See §§ 604 and 604.01 and 37 CFR 1.66. However oaths executed in many states including Alabama, Louisiana, Maryland, Massachusetts, New Jersey, New York, Rhode Island, South Carolina and Virginia need not be impressed with a seal.

If a claim is presented for matter not originally claimed or embraced in the original statement of invention in the specification a supplemental oath is required. 37 CFR 1.67, § 603. [R–8]

602.01 Oath Cannot Be Amended [R–8]

The wording of an oath or declaration cannot be amended. If the wording is not correct or if all of the required affirmations have not been made or if it has not been properly subscribed to, a new oath or declaration must be required. However, in some cases a deficiency in the oath or declaration can be corrected by a supplemental paper and a new oath or declaration is not necessary.

For example, if the oath does not set forth evidence that the notary was acting within his or her jurisdiction at the time he or she administered the oath a certificate of the notary that the oath was taken within his or her jurisdiction will correct the deficiency. See §§ 602 and 604.02.

602.02 New Oath or Substitute for Original

In requiring a new oath or declaration, the examiner should always give the reason for the requirement and call attention to the fact that the application of which it is to form a part must be properly identified in the body of the new oath or declaration, preferably by giving the serial number and the date of filing. This is done in the first action by means of attachment Form PTO–152 (see § 707.07(a)).

Where neither the original oath or declaration, nor the substitute oath or declaration is complete in itself, but the two taken together give all the required data, no further oath or declaration is needed.

602.03 Defective Oath or Declaration

In the first Office action the examiner must point out, making use of attachment Form PTO–152 (see § 707.07(a)), every deficiency in a declaration or oath and require that the same be remedied. However, when an application is otherwise ready for issue, an examiner with full signatory authority may waive the following minor deficiencies:

1. A delay of somewhat more than five weeks plus mailing time in filing after the time of making the declaration, or the time of execution in the case of an oath.

2. Residence of an applicant if a post office address is given.
3. Minor deficiencies in the execution of an oath.
4. Minor deficiencies in the body of the oath where the deficiencies are self-evidently cured in the rest of the oath, as in an oath of plural inventors couched in plural terms except for use of "sole" for "joint," particularly where "sole inventors" is asserted. In re Searles, 164 USPQ 623.

If any of the above are waived, the examiner should write in the margin of the declaration or oath a notation such as "Stale date of declaration (oath) waived; application ready for issue" and his or her initials and the date.

602.04 Foreign Executed Oath

An oath executed in a foreign country must be properly authenticated. See § 604 and 37 CFR 1.66.

602.04(a) Foreign Executed Oath Is Ribboned to Other Application Papers [R–8]

37 CFR 1.66. Officers authorized to administer oaths.

(b) When the oath is taken before an officer in a country foreign to the United States, all the application papers, except the drawings, must be attached together and a ribbon passed one or more times through all the sheets of the application, except the drawings, and the ends of said ribbon brought together under the seal before the latter is affixed and impressed, or each sheet must be impressed with the official seal of the officer before whom the oath is taken. If the papers as filed are not properly ribboned or each sheet impressed with the seal, the case will be accepted for examination but before it is allowed, duplicate papers, prepared in compliance with the foregoing sentence, must be filed.

U.S. Accession to Hague Convention Abolishing the Requirement of Legalization for Foreign Public Documents

On Oct. 15, 1981, the Hague "Convention Abolishing the Requirement of Legalization for Foreign Public Documents" entered into force between the United States and twenty-eight foreign countries that are parties to the Convention. The Convention applies to any document submitted to the United States Patent and Trademark Office for filing or recording, which is sworn to or acknowledged by a notary public in any one of the member countries. The Convention abolishes the certification of the authority of the notary public in a member country by a diplomatic or consular officer of the United States and substitutes certification by a special certificate, or apostille, executed by an officer of the member country. Accordingly, the Office will accept for filing or recording a document sworn to or acknowledged before a notary public in a member country if the document bears, or has appended to it, an apostille certifying the notary's authority. The requirement for a diplomatic or consular certificate, specified in 37 CFR 1.66 and note 1 of 37 CFR 3.45,will not apply to a document sworn to or acknowledged before a notary public in a member country if an apostille is used.

The member countries that are parties to the Convention are:

Austria	Italy	Spain
Bahamas	Japan	Suriname
Belgium	Lesotho	Swaziland
Botswana	Liechtenstein	Switzerland
Cyprus	Luxembourg	Tonga
Fiji	Malawi	U.K. of Great
France	Malta	Britain and
Germany,	Mauritius	N. Ireland
Fed. Rep. of	Netherlands	United States
Hungary	Portugal	Yugoslavia
Israel	Seychelles	

The convention prescribes the following form for the apostille:

Model of Certificate

The certificate will be in the form of a square with sides at least 9 centimetres long

APOSTILLE

(Convention de La Haye du Oct. 5. 1961)

1. Country: _____
   This public document
2. has been signed by_____
3. acting in the capacity of_____
4. bears the seal/stamp of_____

_____

Certified

5. at _____ 6. the_____
7. by _____
8. No. _____
9. Seal/stamp: 10. Signature:

_____

Note that a declaration in lieu of application oath (§ 1.68) need not be ribboned to the other papers. It must, however, be maintained together therewith.

602.05 Oath or Declaration—Date of Execution [R–8]

The time elapsed between the date of execution of the oath or declaration and the filing

date of the application should be checked for compliance with 37 CFR 1.65(c). If an unreasonable time has elapsed, the examiner should call for a new oath or declaration. What constitutes a reasonable time is a question of judgment to be determined by all the circumstances in the particular case. (Five weeks plus time of transmission in the mails was considered reasonable under the circumstances of Ex parte Heinze, 1919 C.D. 67; 265 O.G. 145). The "Notice of informal Patent Application" attachment form PTO–152 is used to notify applicant that the oath or declaration was signed more than three months prior to filing.

If no date of execution appears, applicant is required to file either a new oath or declaration or a certificate from the notary giving the actual date when the oath or declaration was made.

602.05(a) Oath or Declaration in Division and Continuation Cases

Where the date of filing the application is not the date that determines the statutory twelve month period, as in divisional and continuation cases, it is immaterial, so far as concerns the acceptability of the oath or declaration, how long a time intervenes between the execution of the oath or declaration and the filing of the application.

When a divisional application is identical with the original application as filed, signing and execution of the oath in the divisional case may be omitted. (See § 1.60, § 201.06(a).)

602.06 Non-English Oath or Declaration

37 CFR 1.69. Foreign language oaths and declarations. (a) Whenever an individual making an oath or declaration cannot understand English, the oath or declaration must be in a language that such individual can understand and shall state that such individual understands the content of any documents to which the oath or declaration relates.

(b) Unless the text of any oath or declaration in a language other than English is a form provided or approved by the Patent and Trademark Office, it must be accompanied by a verified English translation, except that in the case of an oath or declaration filed under § 1.65 the translation may be filed in the Office no later than two months after the filing date.

Section 1.69 requires that oaths and declarations be in a language which is understood by the individual making the oath or declaration, i.e., a language which the individual comprehends. If the individual comprehends the English language, he should preferably use it. If the individual cannot comprehend the English language, any oath or declaration must be in a language which the individual can comprehend. If an individual uses a language other than English for an oath or declaration, the oath or declaration must include a statement that the individual understands the content of any documents to which the oath or declaration relates. If the documents are in a language the individ-

ual cannot comprehend, the documents may be explained to him so that he is able to understand them.

The Office will accept a single non-English language oath or declaration where there are joint inventors, of which only some understand English but all understand the non-English language of the oath or declaration.

A looseleaf forms book entitled "Patent and Trademark Forms" is available from the Superintendent of Documents. The book includes declaration forms in the following languages:

German	Spanish
Japanese	Danish
French	Finnish
Swedish	Norwegian
Italian	Czech
Dutch	Hungarian
Russian	
Portuguese	Chinese
Romanian	Polish
Greek	Bulgarian
Korean	Indonesian
Arabic	

In all non-English language forms, all information entered on the forms should appear both in the language of the form and in English. If the English equivalent is not on the form when it is signed by the inventor(s), it may be supplied on a separate paper by the inventor or the attorney or agent. [R–6]

602.07 Oath or Declaration Filed in United States as a Designated Office

37 CFR 1.70. Content of oath or declaration relating to content of and amendments to an application under 35 U.S.C. 371(c)(4). (a)(1) When an applicant of an international application, if the inventor, desires to enter the national stage under 35 U.S.C. 371, he or she must specifically identify the international application and any amendments thereto and state that he or she has reviewed the referred to application and any amendments, and that he or she verily believes himself or herself to be the original and first inventor or discoverer of the process, machine, manufacturer, composition of matter, or improvement thereof, for which he or she solicits a patent; that he or she does not know and does not believe that the same was ever known or used in the United States of America before his or her invention or discovery thereof, and shall state of what country he or she is a citizen and where he or she resides and whether he or she is a sole or joint inventor of the invention claimed in his or her international application as filed or as amended. In every application the applicant must distinctly state that to the best of his or her knowledge and belief the invention has not been in public use or on sale in the United States of America more than one year prior to his or her international application, or patented or described in any printed publication in any country before his or her invention or more than one year prior to his or her international application, or patented or made the subject of an inventor's certificate in any foreign country prior to the date of his or her international application on an application filed by himself or herself or his or her legal representatives or assigns more than twelve months prior to his or her international application. He or she must acknowledge a duty to disclose information he or she is aware of which is material to the examination of the application. He or she shall state whether or not any application or patent or inventor's certificate on the same invention has been filed in any foreign country, either by himself or herself, or by his or her legal representatives or assigns. If any such application has been filed, the applicant shall name the country in which the earliest such application was filed, and shall give the day, month, and year of its filing; he or she shall also identify by country and by day, month, and year of filing, every such foreign application filed more than twelve months before the filing of the international application.

(2) This statement (i) must be subscribed to by the applicant, and (ii) must either (a) be sworn to (or affirmed) as provided in § 1.66, or (b) include the personal declaration of the applicant as prescribed in § 1.68.

(b) If the international application was made as provided in §§ 1.422, 1.423 or 1.425, the applicant shall state his or her relationship to the inventor and, upon information and belief, the facts which the inventor is required by this section to state.

Oath and declaration forms under 37 CFR 1.70 are found at 37 CFR 3.56 and 3.57. Full size printed forms are also available free of charge from the Patent and Trademark Office. Address requests to "Box PCT."

603 Supplemental Oath or Declaration

37 CFR 1.67. Supplemental oath or declaration for matter not originally claimed. (a) When an applicant presents a claim for matter originally shown or described but not substantially embraced in the statement of invention or claim originally presented, he shall file a supplemental oath or declaration to the effect that the subject matter of the proposed amendment was part of his invention; that he does not know and does not believe that the same was ever known or used in the United States before his invention or discovery thereof, or patented or described in any printed publication in any country before his invention or discovery thereof, or more than one year before his application, or in public use or on sale in the United States

for more than one year before the date of his application, that said invention has not been patented or made the subject of an inventor's certificate in any foreign country prior to the date of his application in this country on an application filed by himself or his legal representatives or assigns more than twelve months prior to his application in the United States, and has not been abandoned. Such supplemental oath or declaration should accompany and properly identify the proposed amendment, otherwise the proposed amendment may be refused consideration.

(b) In proper cases the oath or declaration here required may be made on information and belief by an applicant other than inventor.

Section 1.67 requires in the supplemental oath or declaration substantially all the data called for in § 1.65 for the original oath or declaration. As to the purpose to be served by the supplemental oath or declaration, the examiner should bear in mind that it cannot be availed of to introduce new matter into an application.

603.01 Supplemental Oath or Declaration Filed After Allowance

Since the decision in Cutter Co. v. Metropolitan Electric Mfg. Co., 275 F. 158 (CA 2 1921), many supplemental oaths and declarations covering the claims in the case have been filed after the case is allowed. Such oaths and declarations may be filed as a matter of right and when received they will be placed in the file by the Patent Issue Division, but their receipt will not be acknowledged to the party filing them. They should not be filed or considered as amendments under 37 CFR 1.312, since they make no change in the wording of the papers on file. See § 714.16.

604 Administration or Execution of Oath

37 CFR 1.66. Officers authorized to administer oaths. (a) The oath or affirmation may be made before any person within the United States authorized by law to administer oaths, or, when made in a foreign country, before any diplomatic or consular officer of the United States authorized to administer oaths, or before any officer having an official seal and authorized to administer oaths in the foreign country in which the applicant may be, whose authority shall be proved by a certificate of a diplomatic or consular officer of the United States, the oath being attested in all cases in this and other countries, by the proper official seal of the officer before whom the oath or affirmation is made. Such oath or affirmation shall be valid as to execution if it complies with the laws of the state or country where made. When the person before whom the oath or affirmation is made in this country is not provided with a seal, his official character shall be established by competent evidence, as by a certificate from a clerk of a court of record or other proper officer having a seal.

See § 602.04(a) for foreign executed oath.

604.01 Seal

When the person before whom the oath or affirmation is made in this country is not provided with a seal, his official character shall be established by competent evidence, as by a certificate from a clerk of a court of record or other proper officer having a seal, except as noted in § 604.03(a), in which situations no seal is necessary. When the issue concerns the authority of the person administering the oath, the examiner should require proof of authority. Depending on the jurisdiction, the "seal" may be either embossed or rubber stamped. The latter should not be confused with a stamped legend indicating only the date of expiration of the notary's commission.

See also § 602.04(a) on foreign executed oath and seal. In some jurisdictions, the seal of the notary is not required but the official title of the officer must be on the oath. This applies to Alabama, California (certain notaries), Louisiana, Maryland, Massachusetts, New Jersey, New York, Ohio, Puerto Rico, Rhode Island, South Carolina and Virginia.

604.02 Venue

That portion of an oath or affidavit indicating where the oath is taken is known as the

venue. Where the county and state in the venue agree with the county and state in the seal, no problem arises. If the venue and seal do not correspond in county and state, the jurisdiction of the notary must be determined from statements by the notary appearing on the oath, or from the listing at § 604.03. Venue and notary jurisdiction must correspond or the oath is improper. The oath should show on its face that it was taken within the jurisdiction of the certifying officer or notary. This may be given either in the venue or in the body of the jurat. Otherwise, a new oath or declaration, or a certificate of the notary that the oath was taken within his jurisdiction, must be required. Ex parte Delavoye, 1906 C.D. 320; 124 O.G. 626; Ex parte Irwin, 1928 C.D. 13; 367 O.G. 701.

The following language may be used in an Office action where the venue is not shown:

[1] The oath in this application lacks the statement of venue. To correct this defect, applicant is required to furnish either a new oath or declaration in proper form, identifying the application by serial number and date of filing, or a certificate by the officer before whom the original oath was taken stating that he or she was within his or her jurisdiction when the oath was administered.

Where the seal and venue differ the appropriate statement on the "Notice of Informal Patent Application" form PTO–152 should be checked. [R–8]

604.03 Notaries and Extent of Jurisdiction [R–8]

The extent of the jurisdiction of the notaries in the various states is given below.

COUNTY ONLY

Louisiana	Texas
Mississippi	

VARIABLE JURISDICTION

(See explanatory paragraphs below)

Alabama (a)	Missouri (e)
Florida (b)	Nebraska (a)
Hawaii (c)	Ohio (f)
Iowa (d)	Tennessee (g)
Kansas (e)	Virginia (h)
Kentucky (d)	West Virginia (d)

STATEWIDE

All other states

(a) Alabama and Nebraska notaries are appointed for counties and for state at large.

(b) Florida notary commissions are customarily for state at large but may be restricted by commission to less than the state at large.

(c) In Hawaii it is generally limited to the judicial circuit.

(d) In Iowa, Kentucky and West Virginia it is limited to county for which appointed, but notary in any county may qualify and act as notary in any other county.

(e) The jurisdiction of Kansas and Missouri notaries is coextensive with county of appointment and adjoining counties.

(f) In Ohio, notaries other than attorneys are appointed by the Governor for a term of 5 years and have power to act only in county for which appointed. An attorney or any person certified by a judge of the court of common pleas of the county in which he resides as qualified for the duties of official stenographic reporter of such state, may, however be commissioned for the entire state. The extent of jurisdiction is stated near the notary's signature.

(g) Tennessee notary publics commissioned in one county may file in county court of any other county and thereupon may exercise the function of his office in such other county. In such cases, however, the notary must attach to his or her certificate a statement that he or she is qualified in the county in which he or she acts. Notaries at large are commissioned by the Secretary of the State. Notary's signature must indicate that he or she is so qualified. Special seal is prescribed by the Secretary of State.

(h) In Virginia, notaries are limited to city or county for which appointed except that notary for city may act in county or city contiguous thereto, and a notary for a county may act in city contiguous thereto. Notaries may be appointed for two or more counties and cities or for the state at large.

The notary does not have to state when his or her commission expires but if he or she does so state, the oath should be inspected to determine whether or not the notary's commission had expired at the date of execution of the oath.

604.03(a) Notarial Powers of Some Military Officers

Public Law 506 (81st Congress, Second Session) Article 136: (a) The following persons on active duty in the armed forces . . . shall have the general powers of a notary public and of a consul of the United States, in the performance of all notarial acts to be executed by members of any of the armed forces, wherever they may be, and by other persons subject to this code [Uniform Code of Military Justice]

outside the continental limits of the United States:

(1) All judge advocates of the Army and Air Force;

(2) All law specialists;

(3) All summary courts-martial;

(4) All adjutants, assistant adjutants, acting adjutants, and personnel adjutants;

(5) All commanding officers of the Navy and Coast Guard;

(6) All staff judge advocates and legal officers, and acting or assistant staff judge advocates and legal officers; and

(7) All other persons designated by regulations of the armed forces or by statute.

(d) The signature without seal of any such person acting as notary, together with the title of his office, shall be prima facie evidence of his authority.

604.04 Consul [R–8]

On Oct. 15, 1981, the "Hague Convention Abolishing the Requirement of Legalization for Foreign Public Documents" entered into force between the United States and twenty-eight foreign countries that are parties to the Convention. See § 604.04(a).

When the oath is made in a foreign country not a member of the Hague Convention Abolishing the Requirement of Legalization for Foreign Public Documents, the authority of any officer other than a diplomatic or consular officer of the United States authorized to administer oaths must be proved by certificate of a diplomatic or consular officer of the United States. See 37 CFR 1.66, § 604. This proof may be through an intermediary; e.g., the consul may certify as to the authority and jurisdiction of another official who, in turn, may certify as to the authority and jurisdiction of the officer befor whom the oath is taken.

604.04(a) Consul-Omission of Certificate [R–8]

Where the oath is taken before an officer in a foreign country other than a diplomatic or consular officer of the United States and whose authority is not authenicated or accompanied with an apostille certifying the notary's authority (see § 602.04(a)), the application is nevertheless given a filing date for purposes of examination. The examiner, in his or her first Office action, should note this informality and require authentication of the oath by an appropriate diplomatic or consular officer, the filing of proper apostille, or a declaration (37 CFR 1.68). The following language is suggested:

[1] "The oath is objected to as being informal in that it lacks authentication by a diplomatic or consular officer of the United States; 37 CFR 1.66(a) or a proper apostille. This informality can be overcome by forwarding the original oath to the appropriate officer for authentication, by filing a proper apsotille, or by filing a declaration (37 CFR 1.68), if applicant wishes to preserve the original filing date. If authentication is desired, applicant should request return of the oath for this purpose. Such request must be accompanied by an order for a copy of the oath to be retained in the file until the properly authenticated oath is returned. After the oath has been authenticated, it should be returned promptly to the Patent and Trademark Office."

At the time of the next Office action the request for return of the oath, together with the application file and the copy of the oath, is submitted to the group director. If the request is approved by him, the oath will be returned to the applicant by the examining group.

604.06 By Attorney in Case [R–8]

The language of 37 CFR 1.66 and 35 U.S.C. 115 is such that an attorney in the case is no longer barred from administering the oath as notary. The Office presumes that an attorney acting as notary is cognizant of the extent of his authority and jurisdiction and will not knowingly jeopardize his or her client's rights by performing an illegal act. If such practice is permissible under the law of the jurisdiction where the oath is administered, then the oath is a valid oath.

The law of the District of Columbia prohibits the administering of oaths by the attorney in the case and hence the old bar still applies in the case of oaths administered in the District of Columbia. If the oath is known to be void because of being administered by the attorney in a jurisdiction where the law holds this to be invalid, the proper action for the Office to take is to strike the application since there is in effect no proper application before the Office and the examiner will refer the file to the solicitor's office to initiate such action. (Riegger v. Beierl, 1910 C.D. 12; 150 O.G. 826). See § 1.66 and § 604.

605 Applicant

37 CFR 1.41. Applicant for patent. (a) A patent must be applied for and the application papers must be signed and the necessary oath or declaration executed by the actual inventor in all cases, except as provided by §§ 1.42, 1.43, and 1.47. (See § 1.60)

(b) Unless the contrary is indicated, the word "applicant" when used in these sections refers to the inventor, joint inventors who have applied for a patent, or to the person mentioned in §§ 1.42, 1.43 or 1.47 who has applied for a patent in place of the inventor.

Extract from 37 CFR 1.45. Joint inventors. (a) Joint inventors must apply for a patent jointly and each must sign the application papers and make the required oath or declaration; neither of them alone, nor less than the entire number, can apply for a patent for an invention invented by them jointly, except as provided in § 1.47.

For convertibility from a joint to sole or sole to joint application, see § 201.03.

37 CFR 1.46. Assigned inventions and patents. In case the whole or a part interest in the invention or in the patent to be issued is assigned, the application must still be made by the inventor or one of the persons mentioned in §§ 1.42, 1.43, or 1.47. However, the patent may be issued to the assignee or jointly to the inventor and the assignee as provided in § 1.334.

This section concerns filing by the actual inventor. If filed by other, see § 409.03.

NOTE

Disposition of application by inventor, § 301. Inventor dead or insane, § 409.

605.01 Applicant's Citizenship

The statute (35 U.S.C. 115) requires an applicant to state his citizenship. Where an applicant is not a citizen of any country, a statement to this effect is accepted as satisfying the statutory requirement; but a statement as to citizenship applied for or first papers taken out looking to future citizenship in this (or any other) country does not meet the requirement.

605.02 Applicant's Residence [R–1]

Applicant's place of residence (not to be confused with his Post Office address) can be furnished by the attorney. In the case of an applicant who is in the U.S. Army or U.S. Navy, a statement to that effect is sufficient as to residence. For change of residence see § 717.02(b).

When the post office address is supplied but the residence is omitted, the post office address is presumed to be the city and state of his or her residence. Applicant should be so notified by using language similar to that suggested below.

[1] "Applicant's residence has been omitted from the papers. The city and state of his post office address will be presumed to be the city and state of his residence. If the above is incorrect, applicant should submit a statement of his place of residence no later than at the time of payment of the issue fee."

If both the post office address and residence are incomplete, not uniform or omitted, the "Notice of Informal Patent Application" form PTO–152 should be used. Note 37 CFR 1.33(a).

605.03 Applicant's Post Office Address [R–1]

Each applicant's Post Office address must be supplied on the oath or declaration, 37 CFR 1.33(a), if not stated elsewhere in the application. Applicant's post office address means that address at which he or she customarily receives his or her mail. The post office address should include the ZIP Code designation.

When a township is listed in the applicant's address, a county name must also be given.

The object of requiring each applicant's post office address is to enable the Office to communicate directly with the applicant if desired; hence, the address of the attorney with instructions to send communications to applicant in care of the attorney is not sufficient.

Where having given complete data as to his residence, the applicant identifies his post office address only by street and number, it is assumed and so accepted, that the city and state of his residence are the city and state of his post office address.

The "Notice of Informal Patent Application" attachment form PTO–152 is used to notify applicant that the post office address is incomplete or omitted. Note 37 CFR 1.33(a).

605.04 Applicant's Signature and Name [R–8]

37 CFR 1.57. Signature. (a) The application must be signed by the applicant in person. The signature to the oath or declaration under § 1.65 will be accepted as the signature to the application provided the oath or declaration under § 1.65 is attached to and refers to the specification and claims to which it applies. Otherwise the signature must appear at the end of the specification after the claims.

(b) The signature to the oath or declaration under § 1.70 will be accepted as the signature to the application provided the oath or declaration under § 1.70 specifically refers to the specification and claims to which it applies.

(c) Full names must be given, including at least one given name without abbreviation together with any other given name or initial.

EXECUTION AND FILING OF PATENT APPLICATIONS

United States patent applications which have not been prepared and executed in accordance

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with the requirements of Title 35 of the United States Code and Title 37 of the Code of Federal Regulations may be denied a filing date as a complete application or may be, in appropriate circumstances, stricken from the files as having been improperly executed and/or filed. Although the statute and the rules have been in existence for many years, the Office continues to receive a number of applications which have been improperly executed and/or filed. Since the improper execution and/or filing of patent applications can ultimately result in a loss of rights it is appropriate to re-emphasize the importance of proper execution and filing.

Attention is invited to the fact that 35 U.S.C. 111 requires that "(t)he application must be signed by the applicant . . ." The same requirement appears in 37 CFR 1.57 which specifies that the signature to the oath or declaration "will be accepted as the signature to the application provided the oath or declaration . . . is attached to and refers to the specification and claims to which it applies. Otherwise the signature must appear at the end of the specification after the claims."

It should be carefully noted that the application "signed by the applicant" must be a *complete* application and cannot be simply an oath or declaration signed without the remainder of the application. As an example, it is improper for an applicant to sign an oath or declaration which is later attached to a specification and/or claims unless the specification is also signed after the claims. See 37 CFR 1.56(c) which provides that "(a)ny application may be stricken from the files if: (1) Signed or sworn to in blank, or without actual inspection by the applicant . . ."

"Attached" as used in 37 CFR 1.57(a) does not necessarily mean that all the papers must be literally fastened. It is sufficient that the specification, including the claims, and the oath or declaration are physically located together at the time of execution. Physical connection is not required.

The provisions of 35 U.S.C. 363 for filing an international application under the Patent Cooperation Treaty (PCT) which designates the United States and thereby has the effect of a regularly filed United States national application, except as provided in 35 U.S.C. 102(e), are somewhat different than the provisions of 35 U.S.C. 111. Under 35 U.S.C. 363 and PCT Article 11(1), the signature of the inventor is not required to obtain a filing date but must be submitted later. The oath or declaration requirements for an international application before the Patent and Trademark Office are set forth in 35 U.S.C. 371(c)(4) and 37 CFR 1.70.

The requirement that applicant sign "the application" also precludes alterations to the application after execution. See 37 CFR 1.52(c) which states that "(n)o . . . alterations are permissible after execution of the application papers." It is therefore necessary that the application, including the oath or declaration, be executed in the form in which it is intended to be filed since it is improper for anyone, including counsel, to complete or otherwise alter application papers, including the oath or declaration, after the applicant has executed the same. Section 1.56(c) provides that "(a)ny application may be stricken from the files if: . . . (2) Altered or partly filled in after being signed or sworn to."

In summary, it is emphasized that the application filed must be the application executed by the applicant and it is improper for anyone, including counsel, to alter, rewrite, or partly fill in any part of the application, including the oath or declaration, after execution by the applicant. This provision should particularly be brought to the attention of foreign applicants by their United States counsel since the United States law and practice in this area may differ from that in other countries.

The signing and execution by the applicant of certain applications may be omitted. §§ 201.06 and 201.07.

NOTE: Signature to response see §§ 714.01(a) to (e).

FACSIMILE COPIES

Since October 1, 1978, the Office has accorded a filing date to facsimile or other reproduced copies of United States national patent applications meeting the requirements of 35 U.S.C. 111, *provided:*

(1) the application was properly executed by the inventor(s) prior to transmission of the copy,
(2) the copy filed is a complete copy and bears a reproduction of applicant's signature, and
(3) the originally signed application is filed no later than two months after the mailing of a letter from the Patent and Trademark Office which requires applicant to file the originally signed application papers. The original papers may be filed before the receipt of such a letter if the Serial Number of the application is known and indicated on the papers being filed.

Authority for this practice is found in 35 U.S.C. 26 as interpreted by the District Court decisions *Neergaard* v. *Dann*, Civil Action No.

76–536, December 20, 1976 (D.D.C.) and *Dietzel et al.* v. *Commissioner of Patents and Trademarks*, Civil Action No. 75–0298, December 22, 1976 (D.D.C.).

In these cases, the Application Division will mail a letter indicating that the application has been provisionally accepted under 35 U.S.C. 26 and requiring that the originally signed application be filed within two months of the date of the letter. The application will then be held in Application Division until the original copy of the application bearing the original signature is received and associated with the file, at which time it will be processed and forwarded to the group for examination.

The copy of the application bearing applicant's original signature will be used for examination purposes. Therefore, this copy should be given a cursory review by the examiner to determine whether or not it appears to be identical to the initially filed copy, i.e., same number of pages and claims, same drawings, etc.

Application Division is authorized to grant one extension of time for filing of the original copy of the application upon a request therefor which shows good and sufficient reason for the extension. If the copy of the application bearing applicant's original signature has not been filed within the prescribed time period, the application becomes abandoned.

In order to ensure prompt association with the copy of the application initially filed it is strongly recommended that the subsequently filed original application be accompanied by a cover letter signed by the applicant or the attorney or agent averring it is the original of the earlier filed facsimile application, identifying the application by applicant's name, title of invention, date of initial filing and serial number.

It should be recognized that this practice is intended for emergency situations to prevent loss of valuable rights and should not be used routinely for filing applications.

The above procedure does not apply to the initial filing of international applications under the Patent Cooperation Treaty since procedures to cover unsigned international applications are already provided for in PCT Article 14(1)(a)(i) and (b) and PCT Rule 26.2. It does however apply to the oath or declaration filed under 35 U.S.C. 371(c)(4) to enter the United States Patent and Trademark Office as a designated office at the national phase.

605.04(a) Single Signature Form

The single signature form should be executed only when attached to a complete application as the last page thereof. Such forms are shown as §§ 3.16 and 3.16(a) in the List of Forms in the Title 37, Code of Federal Regulations booklet.

605.04(b) One Full Given Name Required [R–8]

All applications which disclose the full first and last names with middle initial or name, if any, of the applicant at any place in the application papers will be received and considered as a sufficient compliance with 37 CFR 1.57.

When *a full given name* of the applicant does not appear either in the signature or elsewhere in the papers the examiner will, in the first official action, require an amendment over applicant's signature supplying the omission, and will not pass the application to issue until the omission has been supplied unless a statement has been filed over the applicant's own signature setting forth that his or her name as signed contains at least one given name without abbreviation or what is in fact his or her full given name.

No affidavit should be required.

The requirement should be made only when all of the given names in the signature appear as mere initials or as what can be only an abbreviation of a name.

37 CFR 1.57 requires "full names". One given name without abbreviation, together with any other given name or initial must appear somewhere in the papers as filed. Otherwise, appropriate amendment is required. For example, if the applicant's full name is John Paul Doe, either "John P. Doe" or "J. Paul Doe" is acceptable.

In an application where the name is typewritten with a *middle name or initial*, but the signature is without such middle name or initial, action should be taken as follows:

In the first Office letter, call attention to the lack of uniformity and request information over the applicant's signature as to the correct form of his or her name, together with any necessary amendment.

If applicant, in reply, gives the name without the middle name or initial unaccompanied by any instructions to amend the typewritten name, the reply may be interpreted as a direction to cancel the middle name or initial from the application.

If applicant gives the name with the middle name or initial, interpret the reply as a direction that the middle name or initial is to be used in the name on the printed patent. As the printer takes the name from the face of the file wrapper, the middle name or initial should be added thereto in red ink.

If applicant fails to answer the request and the case is otherwise ready for issue, prepare an examiner's amendment indicating that the name on the drawing has been corrected to correspond with the signature or signatures, have the draftsman correct the drawing, and pass the case to issue. This cannot be done if there are inconsistencies in the signatures of the same applicant.

There should be uniformity notwithstanding that lack of it is not sufficient to affect the validity of the patent.

When the name on the file wrapper is corrected, the file should be sent to the Application Division for correction of its records.

605.04(c) Applicant Changes Name

In cases where an applicant's name has been changed after his application has been filed and the applicant desires that the patent when issued carry an endorsement as to the change in his name, he must submit a recording fee accompanied by either an affidavit signed with both names and setting forth the procedure whereby the change of name was effected, or a certified copy of the court order, such papers are recorded by the Assignment Division where the new name is added on the file wrapper. The Assignment Division forwards the file to the Application Division for a change in their records.

No change is made on the face of the file by the clerk of the examining group. A suitable endorsement being made by the Assignment Division.

Where the change of name is merely by amendment, such as the addition of a full first name or a middle initial and no affidavit is required, the file is sent to the Application Division for a change in their records and if the application is assigned it will be forwarded by the Application Division to the Assignment Division for a change in assignment record.

605.04(d) Applicant Unable to Write

If the applicant is unable to write, his mark as affixed to the application must be attested to by a witness. In the case of the oath, the notary's signature to the jurat is sufficient to authenticate the mark.

605.04(e) May Use Title With Signature

It is permissible for an applicant to use a title of nobility or other title, such as "Dr.", in connection with his signature. The title will not appear in the printed patent.

605.04(f) Signature on Joint Applications—Order of Names

It is not essential that the names appear in the same order in the signatures to the specification and oath or declaration.

The order of names of joint patentees in the heading of the patent is taken from the order in which the typewritten names appear in the original oath or declaration accompanying the application papers. Care should therefore be exercised in selecting the preferred order of the typewritten names of the joint inventors, before filing, as requests for subsequent shifting of the names would entail changing numerous records in the Office. Since the particular order in which the names appear is of no consequence insofar as the legal rights of the joint applicants are concerned, no changes will be made except for good reasons. A request to change the order of names must be signed by either the attorney or agent of record or all the applicants. It is suggested that all typewritten and signed names appearing in the application papers should be in the same order as the typewritten names in the oath or declaration.

In those instances where the joint applicants file separate oaths or declarations, the order of names is taken from the order in which the several oaths or declarations appear in the application papers unless a different order is requested at the time of filing.

605.04(g) When Name Is Corrected, Send to Application Division

When the name is corrected by amendment or the order of the names is changed, the file should be sent to the Application Division for correction of the name in its record. When the name is changed, see § 605.04(c).

605.04(h) Signature to Drawing

Signatures and names are not permitted within the sight space of a drawing prepared under 37 CFR 1.84 as amended on May 28, 1971. All drawings filed after January 1, 1972 must comply with the amended rules. The name of the applicant and other identifying informa-

tion may be placed at the top center margin of the drawing. See § 608.02.

605.05 Administrator, Executor, or Other Legal Representative

In an application filed by a legal representative of the inventor, the specification should not be written in the first person. Instead of the usual "I have found," the wording should be "it was found."

For prosecution by administrator or executor, see § 409.01(a).

For prosecution by heirs, see §§ 409.01(a) and 409.01(d).

For prosecution by representative of legally incapacitated inventor, see § 409.02.

For prosecution by other than inventor, see § 409.03.

605.05(a) Signature of Legal Representative

If the specification bears the *signature* of the administrator or executor but omits the matter, "administrator of the Estate of John Jones, deceased," the matter can be added by amendment. The examiner may make the amendment if the case is otherwise ready for issue.

605.06 Filing by Other Than Inventor

See § 409.03.

606 Title of Invention

37 CFR 1.72(a). The title of the invention, which should be as short and specific as possible, should appear as a heading on the first page of the specification, if it does not otherwise appear at the beginning of the application.

606.01 Examiner May Require Change in Title

Where the title is not descriptive of the invention claimed, the examiner should require the substitution of a new title that is clearly indicative of the invention to which the claims are directed. This may result in slightly longer titles, but the loss in brevity of title will be more than offset by the gain in its informative value in indexing, classifying, searching, etc. If a satisfactory title is not supplied by the applicant, the examiner may change the title by examiner's amendment or by initialing, on or after allowance.

If a change in title is the only change being made by the examiner at the time of allowance a separate examiner's amendment need not be prepared. The change in title will be incorporated in the notice of allowance. This will be accomplished by placing an "X" in the designated box on the notice of allowance form and entering thereunder the title as changed by the examiner who should initial the face of the file wrapper.

However, if an examiner's amendment must be prepared for other reasons any change in title will be incorporated therein.

Inasmuch as the words "improved", "improvement of" and "improvement in" are not considered as part of the title of an invention, the Patent and Trademark Office does not include these words at the beginning of the title of the invention.

607 Filing Fee

35 U.S.C. 41. Patent fees. (a) The Commissioner shall charge the following fees:

1. On filing each application for an original patent, except in design cases, $65; in addition on filing or on presentation at any other time, $10 for each claim in independent form which is in excess of one, and $2, for each claim (whether independent or dependent) which is in excess of ten. For the purpose of computing fees, a multiple dependent claim as referred to in section 112 of this title or any claim depending therefrom shall be considered as separate dependent claims in accordance with the number of claims to which reference is made. Errors in payment of the additional fees may be rectified in accordance with regulations of the Commissioner.

The above wording of 35 U.S.C. 41 came into force on January 24, 1978 and is effective to all U.S. patent applications filed on and after that date.

See § 608.01(n) for multiple dependent claims.

When filing an application, a basic fee of $65 entitles applicant to present (10) claims including not more than (1) in independent form. If claims in excess of the above are included at the time of filing, an additional fee of $10 is required for each independent claim in excess of one, and a $2 fee for each claim in excess of ten (10) claims (whether independent or dependent). The fee for proper multiple dependent claims is $2 for each dependency. For an improper dependent claim the fee is $2.

Upon submission of an amendment (whether entered or not) affecting the claims, payment of the following additional fees is required in a pending application:

$10--for each independent claim pending in excess of the number of independent claims already paid for.

$2--for each claim pending in excess of the total number already paid for. A proper multiple dependent claim counts as one claim for each claim referred to. (It should be recognized that the basic $65 fee pays for ten (10) claims, one of which may be independent, regardless of the number actually filed.)

The Application Division has been authorized to accept all applications, otherwise acceptable, if the basic fee of $65 is submitted, and to require payment of the deficiency within a stated period upon notification of the deficiency.

Amendments before the first action, or not filed in response to an Office action, presenting additional claims in excess of the number already paid for, not accompanied by the full additional fee due, will not be entered in whole or in part and applicant will be so advised. Such amendments filed in reply to an Office action will be regarded as not responsive thereto and the practice set forth in § 714.03 will be followed.

The additional fees, if any, due with an amendment are calculated on the basis of the claims (total and independent) which would be present, if the amendment were entered. The amendment of a claim, unless it changes a dependent claim to an independent claim or adds to the number of claims referred to in a multiple dependent claim and the replacement of a claim by a claim of the same type unless it a multiple dependent claim which refers to more prior claims do not require any additional fees.

For purposes of determining the fee due the Patent and Trademark Office, a claim will be treated as dependent if it contains reference to one or more other claims in the application. A claim determined to be dependent by this test will be entered if the fee paid reflects this determination.

Any claim which is in dependent form but which is so worded that it, in fact is not, as for example it does not include every limitation of the claim on which it depends, will be required to be canceled as not being a proper dependent claim; and cancellation of any further claim depending on such a dependent claim will be similarly required. The applicant may thereupon amend the claims to place them in proper dependent form, or may redraft them as independent claims, upon payment of any necessary additional fee.

After a requirement for restriction, nonelected claims will be included in determining the fees due in connection with a subsequent amendment unless such claims are canceled.

An amendment canceling claims accompanying the papers constituting the application will be effective to diminish the number of claims to be considered in calculating the filing fees to be paid.

The additional fees, if any, due with an amendment are required prior to any consideration of the amendment by the examiner.

Money paid in connection with the filing of a proposed amendment will not be refunded by reason of the nonentry of the amendment. However, unentered claims will not be counted when calculating the fee due in subsequent amendments.

Amendments affecting the claims cannot serve as the basis for granting any refund.

Forms 3.51 and 3.52, located in 37 Code of Federal Regulations, may be used as an aid in determining the required fee. Copies of these forms are available from the Correspondence and Mail Branch and from the receptionist in the lobby of building 3 of the Patent and Trademark Office. See § 1401 for reissue application fees.

607.02 Returnability of Fees

All questions pertaining to the return of fees are referred to the Refund Branch of the Accounting and Cost Analysis Division of the Office of Finance. No opinions should be expressed to attorneys or applicants as to whether or not fees are returnable in particular cases.

608 Disclosure

In return for a patent, the inventor gives as consideration a complete revelation or disclosure of the invention for which he seeks protection. All amendments or claims must find basis in the original disclosure, or they involve new matter. Applicant may rely for disclosure upon the specification with original claims and drawings, all as filed complete. See 37 CFR §§ 1.118 and 608.04.

If during the course of examination of a patent application, an examiner notes the use of language that could be deemed offensive to any race, religion, sex, ethnic group, or nationality, he should object to the use of the language as failing to comply with the Rules of Practice. Section 1.3 proscribes the presentation of papers which are lacking in decorum and courtesy. There is a further basis for objection in that the inclusion of such proscribed language in a Federal Government publication would not be in the public interest. Also, the inclusion in application drawings of any depictions or caricatures that might reasonably be considered offensive to any group should be similarly objected to, on like authority.

The examiner should not pass the application to issue until such language or drawings have been deleted, or questions relating to the propriety thereof fully resolved.

For design application practice see § 1504.

608.01 Specification

35 U.S.C. 22. Printing of papers filed. The Commissioner may require papers filed in the Patent and Trademark Office to be printed or typewritten.

37 CFR 1.71. Detailed description and specification of the invention. (a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

(c) In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

Certain cross notes to other related applications may be made. References to foreign applications or to applications identified only by the attorney's docket number should be required to be cancelled. See 37 CFR 1.78 and § 202.01.

37 CFR 1.52. Language, paper, writing, margins. (a) The application, any amendments or corrections thereto, and the oath or declaration must be in the English language except as provided for in § 1.69, or be accompanied by a verified translation of the application and a translation of any corrections or amendments into the English language. All papers which are to become a part of the permanent records of the Patent and Trademark Office must be legibly written, typed, or printed in permanent ink or its equivalent in quality. All of the application papers must be presented in a form having sufficient clarity and contrast between the paper and the writing, typing, or printing thereon to permit the direct production of readily legible copies in any number by use of photographic, electrostatic, photo-offset, and microfilming processes. If the papers are not of the required quality, substitute typewritten or printed papers of suitable quality may be required.

(b) The application papers (specification, including claims, abstract, oath or declaration, and papers as provided for in §§ 1.42, 1.43, 1.47, etc.) and also papers subsequently filed, must be plainly written on but one side of the paper. The size of all sheets of paper should be 8 to 8½ by 10½ to 13 inches (20.3 to 21.6 cm. by 26.6 to 33.0 cm.). A margin of at least approximately 1 inch (2.5 cm.) must be reserved on the left-hand of each page. The top of each page of the application, including claims must have a margin of at least approximately ¾ inch (2 cm.). The lines must not be crowded too closely together; typewritten lines should be 1½ or double spaced. The pages of the application including claims and abstract should be numbered consecutively, starting with 1, the numbers being centrally located above or preferably, below, the text.

(c) Any interlineation, erasure, or cancellation or other alteration of the application papers as filed must have been made before the application was signed and sworn to or declaration made, and should be dated and initialed or signed by the applicant in a marginal note or footnote on the same sheet of paper to indicate such fact. No such alterations are permissible after execution of the application papers. (See § 1.56.)

37 CFR 1.58. Chemical and mathematical formulas and tables. (a) The specification, including the claims, may contain chemical and mathematical formulas, but shall not contain drawings or flow diagrams. The description portion of the specification may contain tables; claims may contain tables only if necessary to conform to 35 U.S.C. 112 or if otherwise found to be desirable.

(b) All tables and chemical and mathematical formulas in the specification, including claims, and amendments thereto, must be on paper which is flexible, strong, white, smooth, nonshiny, and durable, in order to permit use as camera copy when printing any patent which may issue. A good grade of bond paper is acceptable; watermarks should not be prominent. India ink or its equivalent, or solid black typewriter should be used to secure perfectly black solid lines.

(c) To facilitate camera copying when printing, the width of formulas and tables as presented should be limited normally to 5 inches (12.7 cm.) so that it may appear as a single column in the printed patent. If it is not possible to limit the width of a formula or table to 5 inches (12.7 cm.), it is permissible to present the formula or table with a maximum width of 10¾ inches (27.3 cm.) and to place it sideways on the sheet. Typewritten characters used in such formulas and tables must be from a block (nonscript) type font or lettering style having capital letters which are at least 0.08 inch (2.1 mm.) high (elite type). Hand lettering must be neat, clean, and have a minimum character height of 0.08 inch (2.1 mm.). A space at least ¼ inch (6.4 mm.) high should be provided between complex formulas and tables and the text. Tables should have

the lines and columns of data closely spaced to conserve space, consistent with high degree of legibility.

In order that specifications may be expeditiously handled by the Office, page numbers should be placed at the center of the top or bottom of each page. It is a common practice and a commendable one, to consecutively number all the lines or every fifth line of each page. A top margin of at least ¾ inch should be reserved on each page to prevent possible mutilation of text when the papers are punched for insertion in a file wrapper.

Applicants should make every effort to file patent applications in a form that is clear and reproducible. The Office may accept for filing date purposes papers of reduced quality but will require that acceptable copies be supplied for further processing. Typed, mimeographed, xeroxprinted, multigraphed or non-smearing carbon copy forms of reproduction are acceptable.

Legibility includes ability to be photocopied and photomicrographed so that suitable reprints can be made. This requires a high contrast, with black lines and a white background. Gray lines and/or a gray background sharply reduce photo reproduction quality. Legibility of some application papers may become impaired due to abrasion or aging of the printed material during examination and ordinary handling of the file. It may be necessary to require that legible and permanent copies be furnished at later stages after filing, particularly when preparing for issue.

Some of the patent application papers received by the Patent and Trademark Office are copies of the original, ribbon copy. These are acceptable if, in the opinion of the Office, they are legible and permanent.

The paper used must have a surface such that amendments may be written thereon in ink. So-called "Easily Erasable" paper having a special coating so that erasures can be made more easily may not provide a "permanent" copy. Section 1.52(a). If a light pressure of an ordinary (pencil) eraser removes the imprint, the examiner should, as soon as this becomes evident, notify applicant that it will be necessary for him or her to order a copy of the specification and claims to be made by the Patent and Trademark Office at the applicant's expense for incorporation in the file. It is *not* necessary to return this copy to applicant for signature.

See in re Benson, 1959 C.D. 5; 744 O.G. 353. Reproductions prepared by heat-sensitive, hectographic or spirit duplication processes are also not satisfactory.

The specification is sometimes in such faulty English that a new specification is necessary, but new specifications encumber the record and require additional reading, and hence should not be required or accepted except in extreme cases.

The specification does not require a date.

If a newly filed application obviously fails to disclose an invention with the clarity required by 35 U.S.C. 112, revision of the application should be required. See § 702.01.

As the specification is never returned to applicant under any circumstances, the applicant should retain a line for line copy thereof, each line, preferably, having been consecutively numbered on each page. In amending, the attorney or the applicant requests insertions, cancellations, or alterations, giving the page and the line.

Section 1.52(c) relating to interlineations and other alterations is strictly enforced. See In re Swanberg, 129 USPQ 364.

Use of Metric System of Measurements in Patent Applications

In order to minimize the necessity in the future for converting dimensions given in the English system of measurements to the metric system of measurements when using printed patents as research and prior art search documents, all patent applicants are strongly encouraged to use *either* (1) only metric (S.I.) units, or (2) English units together with their metric system equivalents, when describing their inventions in the specifications of patent applications. This practice, however, is not being made mandatory at this time.

The initials S.I. stand for "Systeme International d'Unites", the French name for the International System of Units, a modernized metric system adopted in 1960 by the International General Conference of Weights and Measures based on precise unit measurements made possible by modern technology.

This request is made as part of the long-range program for conversion to metric units currently being conducted by the Federal Government.

Filing of Non-English Language Applications

The Patent and Trademark Office will accord a filing date to an application meeting the requirements of 35 U.S.C. 111 even though some or all of the application papers, including the written description and the claims, is in a language other than English and hence does not comply with 37 CFR 1.52, *provided:*

(1) the oath or declaration, is signed and physically attached to the specification and claims to which it refers; and

(2) the application papers are accompanied by a statement from the applicant, his attorney or agent, certifying that it has been considered necessary to file the non-English language application in order to save a foreign priority date or prevent the running of a statutory bar.

A verified English translation of the non-English language papers should either accompany the application papers or be filed in the Office no later than two months after a notice requesting the translation has been mailed by the Office.

A subsequently filed verified English translation must contain the complete identifying data for the application in order to permit prompt association with the papers initially filed. Accordingly, it is strongly recommended that the original application papers be accompanied by a cover letter and a self-addressed return post card, each containing the following identifying data in English: (a) applicant's name(s); (b) title of invention; (c) number of pages of specifications, claims, and sheets of drawings; (d) whether oath or declaration was filed and (e) amount and manner of paying the filing fee.

The translation must be a literal translation verified as such by the translator, and must be accompanied by a signed request from the applicant, his attorney or agent, asking that the verified English translation be used as the copy for examination purposes in the Office. If the verified English translation does not conform to idiomatic English and United States practice it should be accompanied by a preliminary amendment making the necessary changes without the introduction of new matter prohibited by 35 U.S.C. 132. In the event the verified literal translation is not timely filed in the Office the application will be regarded as abandoned.

It should be recognized that this practice is intended for emergency situations to prevent loss of valuable rights and should not be routinely used for filing applications. There are at least two reasons why this should not be used on a routine basis. First, there are obvious dangers to applicant and the public if he fails to obtain a correct literal translation. Second, the filing of a large number of applications under the procedure will create significant administrative burdens on the Office.

The practice will be closely monitored to determine whether or not it should be continued.

Illustrations in the Specification

Graphical illustrations, diagrammatic views, flow charts and diagrams in the descriptive portion of the specification do not come within the purview of 37 CFR 1.58(a), which permits tables and chemical formulas in the specification in lieu of formal drawings. The examiner should object to such descriptive illustrations in the specification and request formal drawings in accordance with 37 CFR 1.81 when an application contains graphs in the specification.

Since the December 7, 1976 issue of patents, all tables and mathematical equations and chemical formulas, or portions thereof, have been reproduced for printing by a computer process developed by the Data Base Contractor. Those portions of chemical formulas which cannot be reproduced by the process, such as dotted, curved, broken and wedge-shape lines, must be drawn by hand on the photocomposed page. There are, however, some chemical structures which cannot be reproduced because they are either too complex or involve too many lines which cannot be generated by the computer process. The camera copy process, which is used to insert these types of structures onto the printed patent page, is both time consuming and costly to the Office. Because of the reduction factor and failure to comply with the guidelines set forth in 37 CFR 1.58 (a) and (b), the reproduction of these structures is often poor.

Therefore, the specification, including the claims, may contain chemical formulas and mathematical equations, but should not contain drawings or flow diagrams or diagrammatic views of chemical structures. The description portion of the specification may contain tables; claims may contain tables only if necessary to conform to 35 U.S.C. 112.

608.01(a) Arrangement of Application [R-5]

37 CFR 1.77. Arrangement of application. The elements of the application should appear in the following order:

(a) Title of the invention; or an introductory portion stating the name, citizenship, and residence of the applicant, and the title of the invention may be used.

(b) (Reserved).

(c) (1) Cross-reference to related applications, if any.

(2) Reference to a 'microfiche appendix" if any. (See Section 1.96(b)). The total number of microfiche and total number of frames should be specified.

(d) Brief summary of the invention.

(e) Brief description of the several views of the drawing, if there are drawings.

(f) Detailed description.

(g) Claim or claims.

(h) Signature. (See § 1.57.)

(i) Abstract of the disclosure.

(j) Drawings.

NOTE

Design patent specification, § 1503.01.
Plant patent specification, § 1605.
Reissue patent specification, § 1401.06.

The following order of arrangement is preferable in framing the specification and, except for the title of the invention, each of the lettered items should be preceded by the headings indicated.

(a) Title of the Invention.
(b) Cross-References to Related Applications (if any).
(c) Background of the Invention.
1. Field of the Invention.
2. Description of the Prior Art.
(d) Summary of the Invention.
(e) Brief Description of the Drawing.
(f) Description of the Preferred Embodiment(s).
(g) Claim(s).
(h) Abstract of the Disclosure.

608.01(b) Abstract of the Disclosure

37 CFR 1.72(b). **A brief abstract of the technical disclosure in the specification must be set forth on a separate sheet, preferably following the claims under the heading "Abstract of the Disclosure". The purpose of the abstract is to enable the Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. The abstract shall not be used for interpreting the scope of the claims.**

In all cases which lack an abstract, the examiner in the first Office action should require the submission of a brief abstract of the technical disclosure in the specification.

If the abstract contained in the application does not comply with the guidelines, the examiner should point out the defect to the applicant in the first Office action, or at the earliest point in the prosecution that the defect is noted, and require compliance with the guidelines. Since the abstract of the disclosure has been interpreted to be a part of the specification for the purpose of compliance with paragraph 1 of 35 U.S.C. 112 (In re Armbruster, 512 F2d 676, 185 USPQ 152 (CCPA, 1975), it would ordinarily be preferable that the applicant make the necessary changes to the abstract to bring it into compliance with the guidelines.

Responses to such actions requiring either a new abstract or amendment to bring the abstract into compliance with the guidelines should be treated under 37 CFR 1.111(b) practice like any other formal matter. Any submission of a new abstract or amendment to an existing abstract should be carefully reviewed for introduction of new matter, 35 U.S.C. 132, § 608.04.

Upon passing the case to issue, the examiner should see that the abstract is an adequate and clear statement of the contents of the disclosure and generally in line with the guidelines. The abstract shall be changed by the examiner's amendment in those instances where deemed necessary. This authority and responsibility of the examiner shall not be abridged by the desirability of having the applicant make the necessary corrections. For example, if the application is otherwise in condition for allowance except that the abstract does not comply with the guidelines, the examiner generally should make any necessary revisions by examiner's amendment rather than issuing an Ex parte Quayle action requiring applicant to make the necessary revisions.

Under current practice, in all instances where the application contains an abstract when sent to issue, the abstract will be printed on the patent.

GUIDELINES FOR THE PREPARATION OF PATENT ABSTRACTS

Background

The Rules of Practice in Patent Cases require that each application for patent include an abstract of the disclosure, 37 CFR 1.72(b).

The content of a patent abstract should be such as to enable the reader thereof, regardless of his degree of familiarity with patent documents, to ascertain quickly the character of the subject matter covered by the technical disclosure and should include that which is new in the art to which the invention pertains.

The abstract is not intended nor designed for use in interpreting the scope or meaning of the claims, 37 CFR 1.72(b).

Content

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is *new* in the art to which the invention pertains.

If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure.

If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement.

In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or a use thereof.

If the new technical disclosure involves modifications or alternatives, the abstract should

mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following: (1) if a machine or apparatus, its organization and operation; (2) if an article, its method of making; (3) if a chemical compound, its identity and use; (4) if a mixture, its ingredients; (5) if a process, the steps. Extensive mechanical and design details of apparatus should not be given.

With regard particularly to chemical patents, for compounds or compositions, the general nature of the compound or composition should be given as well as the use thereof, e.g., "The compounds are of the class of alkyl benzene sulfonyl ureas, useful as oral anti-diabetics." Exemplification of a species could be illustrative of members of the class. For processes, the type reaction, reagents and process conditions should be stated, generally illustrated by a single example unless variations are necessary.

Language and Format

The abstract should be in narrative form and generally limited to a single paragraph within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape by the printer is limited. If the abstract cannot be placed on the computer tape because of its excessive length, the application will be returned to the examiner for preparation of a shorter abstract. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should sufficiently describe the disclosure to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "This disclosure concerns," "The disclosure defined by this invention," "This disclosure describes," etc.

Responsibility

Preparation of the abstract is the responsibility of the applicant. Background knowledge of the art and an appreciation of the applicant's contribution to the art are most important in the preparation of the abstract. The review of the abstract, for compliance with these guidelines, with any necessary editing and revision on allowance of the application is the responsibility of the examiner.

Sample Abstracts

(1) A heart valve which has an annular valve body defining an orifice and a plurality of struts forming a pair of cages on opposite sides of the orifice. A spherical closure member is captively held within the cages and is moved by blood flow between open and closed positions in check valve fashion. A slight leak or backflow is provided in the closed position by making the orifice slightly larger than the closure member. Blood flow is maximized in the open position of the valve by providing an inwardly convex contour on the orifice-defining surfaces of the body. An annular rib is formed in a channel around the periphery of the valve body to anchor a suture ring used to secure the valve within a heart.

(2) A method for sealing whereby heat is applied to seal, overlapping closure panels of a folding box made from paperboard having an extremely thin coating of moisture-proofing thermoplastic material on opposite surfaces. Heated air is directed at the surfaces to be bonded, the temperature of the air at the point of impact on the surfaces being above the char point of the board. The duration of application of heat is made so brief, by a corresponding high rate of advance of the boxes through the air stream, that the coating on the reverse side of the panels remains substantially non-tacky. The bond is formed immediately after heating within a period of time for any one surface point less than the total time of exposure to heated air of that point. Under such conditions the heat applied to soften the thermoplastic coating is dissipated after completion of the bond by absorption into the board acting as a heat sink without the need for cooling devices.

(3) Amides are produced by reacting an ester of a carboxylic acid with an amine, using as catalyst an alkoxide of an alkali metal. The ester is first heated to at least 75° C. under a pressure of no more than 500 mm. of mercury to remove moisture and acid gases which would prevent the reaction, and then converted to an amide without heating to initiate the reaction.

608.01(c) Background of the Invention

The Background of the Invention ordinarily comprises two parts:

(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions. The statement should be directed to the subject matter of the claimed invention.

(2) Description of the Prior Art: A paragraph(s) describing to the extent practical the state of the prior art known to the applicant,

including references to specific prior art where appropriate. Where applicable, the problems involved in the prior art, which are solved by the applicant's invention, should be indicated. See also §§ 608.01(a), 608.01(p) and 707.05(b).

608.01(d) Brief Summary of Invention

37 CFR 1.73. Summary of the invention. A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed.

Since the purpose of the brief summary of invention is to apprise the public, and more especially those interested in the particular art to which the invention relates, of the nature of the invention, the summary should be directed to the specific invention being claimed, in contradistinction to mere generalities which would be equally applicable to numerous preceding patents. That is, the subject matter of the invention should be described in one or more clear, concise sentences or paragraphs. Stereotyped general statements that would fit one case as well as another serve no useful purpose and may well be required to be canceled as surplusage, and, in the absence of any illuminating statement, replaced by statements that are directly in point as applicable exclusively to the case in hand.

The brief summary, if properly written to set out the exact nature, operation and purpose of the invention, will be of material assistance in aiding ready understanding of the patent in future searches. See § 905.04. The brief summary should be more than a mere statement of the objects of the invention, which statement is also permissible under 37 CFR 1.73.

The brief summary of invention should be consistent with the subject matter of the claims. Note final review of application and preparation for issue, § 1302.

608.01(e) Reservation Clauses Not Permitted

37 CFR 1.79. Reservation clauses not permitted. A reservation for a future application of subject matter disclosed but not claimed in a pending application will not be permitted in the pending application, but an application disclosing unclaimed subject matter may contain a reference to a later filed application of the same applicant or owned by a common assignee disclosing and claiming that subject matter.

608.01(f) Brief Description of Drawings

37 CFR 1.74. Reference to drawings. When there are drawings, there shall be a brief description of the several views of the drawings and the detailed description of the invention shall refer to the different views by specifying the numbers of the figures, and to the different parts by use of reference letters or numerals (preferably the latter).

The examiner should see to it that the figures are correctly described in the brief description of the drawing, that all section lines used are referred to, and that all needed section lines are used.

608.01(g) Detailed Description of Invention

A detailed description of the invention and drawings follows the general statement of invention and brief description of the drawings. This detailed description, required by 37 CFR 1.71, § 608.01, must be in such particularity as to enable any person skilled in the pertinent art or science to make and use the invention without involving extensive experimentation. An applicant is ordinarily permitted to use his own terminology, as long as it can be understood. Necessary grammatical corrections, however, should be required by the examiner, but it must be remembered that an examination is not made for the purpose of securing grammatical perfection.

The reference characters must be properly applied, no single reference character being used for two different parts or for a given part and a modification of such part. In the latter case, the reference character, applied to the "given part," with a prime affixed may advantageously be applied to the modification. Every feature specified in the claims must be illustrated, but there should be no superfluous illustrations.

The description is a dictionary for the claims and should provide clear support or antecedent basis for all terms used in the claims. See 37 CFR 1.75, §§ 608.01(i), 608.01(o), and 1302.01.

NOTE.—Completeness, § 608.01(p).

USE OF SYMBOL "ϕ" IN PATENT APPLICATION

The Greek letter Phi has long been used as a symbol in equations in all technical disciplines. It further has special uses which include the indication of an electrical phase or clocking signal as well as an angular measurement. The recognized symbols for the upper and lower

case Greek Phi characters, however, do not appear on most typewriters. This apparently has led to the use of a symbol composed by first striking a zero key and then backspacing and striking the "cancel" or "slash" key to result in "ϕ" which is an approximation of accepted symbols for the Greek character Phi. In other instances the symbol is composed using the upper or lower case letter "O" with the "cancel" or "slash" superimposed thereon by backspacing or is simply handwritten in a variety of styles. These expedients result in confusion because of the variety of type sizes and styles available on modern typewriters.

In recent years, the growth of data processing has seen the increasing use of this symbol ("ϕ") as the standard representation of zero. The "slashed" or "cancelled zero" is used to indicate zero and avoid confusion with the upper case letter "O" in both text and drawings.

Thus, when the symbol "ϕ" in one of its many variations, as discussed above, appears in patent applications being prepared for printing, confusion as to the intended meaning of the symbol arises. Those (such as examiners, attorneys, and applicants) working in the art can usually determine the intended meaning of this symbol because of their knowledge of the subject matter involved, but editors preparing these applications for printing have no such specialized knowledge and confusion arises as to which symbol to print. The result, at the very least, is delay until the intended meaning of the symbol can be ascertained.

Since the Office does not have the resources to conduct a technical editorial review of each application before printing, and in order to eliminate the problem of printing delays associated with the usage of these symbols, any question about the intended symbol will be resolved by the editorial staff of the Office of Publications by printing the symbol "ϕ" whenever that symbol is used by the applicant. Any Certificate of Correction necessitated by the above practice will be at the patentee's expense (37 CFR 1.323) because the intended symbol was not accurately presented by the Greek upper or lower case Phi letters (Φ,ϕ) in the patent application.

608.01(h) Mode of Operation of Invention

The best mode contemplated by the inventor of carrying out his invention must be set forth in the description. The Office practice is to accept an operative example as sufficient to meet this requirement of the Statute in the absence of information to the contrary.

The question of whether an inventor has or has not disclosed what he feels is his best mode is a question separate and distinct from the question of sufficiency of his disclosure, In re Gay, 135 USPQ 311 (C.C.P.A. 1962); In re Glass, 181 USPQ 31 (C.C.P.A. 1974). See 35 U.S.C. 112 and 37 CFR 1.71(b). *Sylgab Steel & Wire Corp.* v. *Imoco-Gateway Corp.*, 357 F. Supp. 657, 178 USPQ 22 (N.D. Ill. 1973); *H. K. Porter Co., Inc.* v. *Gates Rubber Co.*, 187 USPQ 692, 708, (D. Colo. 1975).

In chemical cases, complete data necessary for the preparation and use of at least one example of the invention should be presented.

Patents have been held invalid in cases where the patentee did not disclose the best mode known to him. See *Flick-Reedy Corp.* v *Hydro-Line Manufacturing Co.*, 351 F.2d 546, 146 USPQ 694 (CA 7 1965), cert. denied, 383 U.S. 958, 148 USPQ 771 (1966); *Indiana General Corp.* v. *Krystinel Corp.*, 297 F. Supp. 427, 161 USPQ 82 (S.D.N.Y. 1969), affirmed, 421 F.2d 1033, 164 USPQ 321 (CA 2 1970); *Dale Electronics, Inc.* v. *R.C.L. Electronics, Inc.*, 488 F.2d 382, 180 USPQ 235 (CA 1 1973); *Union Carbide Corp.* v. *Borg-Warner Corp.*, 550 F. 2d 355, 193 USPQ 1 (CA 6 1977); *Reynolds Metals Co.* v. *Acorn Building Components Inc.* 548 F.2d 155, 163, 192 USPQ 737 (CA 6 1977).

NOTE.—Completeness, § 608.01(p).

608.01(i) Claims

37 CFR 1.75 Claims(s). (a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

(b) More than one claim may be presented provided they differ substantially from each other and are not unduly multiplied.

(c) One or more claims may be presented in dependent form, referring back to and further limiting another claim or claims in the same application. Any dependent claim which refers to more than one other claim ("multiple dependent claim") shall refer to such other claims in the alternative only. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. For fee calculation purposes, a multiple dependent claim will be considered to be that number of claims to which direct reference is made therein. For fee calculation purposes, also, any claim depending from a multiple dependent claim will be considered to be that number of claims to which direct reference is made in that multiple dependent claim. Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of each of the particular claims in relation to which it is being considered.

(d) (1) The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See § 1.58(a).)

(2) See §§ 1.141 to 1.146 as to claiming different inventions in one application.

(e) Where the nature of the case admits, as in the case of an improvement, any independent claim should contain in the following order, (1) a preamble comprising a general description of all the elements or steps of the claimed combination which are conventional or known, (2) a phrase such as "wherein the improvement comprises," and (3) those elements, steps and/or relationships which constitute that portion of the claimed combination which the applicant considers as the new or improved portion.

(f) If there are several claims, they shall be numbered consecutively in Arabic numerals.

(g) All dependent claims should be grouped together with the claim or claims to which they refer to the extent possible. (NOTE.—Multiple dependent claims may only be presented in applications filed on and after January 24, 1978.)

NOTE

Numbering of Claims, § 608.01(j).
Form of Claims, § 608.01(m).
Dependent claims, § 608.01(n).
Examination of claims, § 706.
Claims in excess of fee, § 714.10.

608.01(j) Numbering of Claims

37 CFR 1.126. Numbering of claims. The original numbering of the claims must be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When claims are added, except when presented in accordance with § 1.121(b), they must be numbered by the applicant consecutively beginning with the number next following the highest numbered claim previously presented (whether entered or not). When the application is ready for allowance, the examiner, if necessary, will renumber the claims consecutively in the order in which they appear or in such order as may have been requested by applicant.

In a single claim case, the claim is not numbered.

608.01(k) Statutory Requirement of Claims

35 U.S.C. 112 requires that the applicant shall particularly point out and distinctly claim the subject matter which he regards as his invention. The portion of the application in which he does this forms the claim or claims. This is an important part of the application, as it is the definition of that for which protection is granted.

608.01(l) Original Claims

In establishing a disclosure, applicant may rely not only on the specification and drawing as filed but also on the original claims if their content justifies it.

Where subject matter not shown in the drawing or described in the specification is claimed in the case as filed, and such original claim itself constitutes a clear disclosure of this subject matter, then the claim should be treated on its merits, and requirement made to amend the drawing and specification to show this subject matter. The claim should not be attacked either by objection or rejection because this subject matter is lacking in the drawing and specification. It is the drawing and specification that are defective; not the claim.

It is of course to be understood that this disclosure in the claim must be sufficiently specific and detailed to support the necessary amendment of the drawing and specification.

608.01(m) Form of Claims

While there is no set statutory form for claims, the present Office practice is to insist that each claim must be the object of a sentence starting with "I (or we) claim" (or the equivalent). If, at the time of allowance, the quoted terminology is not present, it is inserted by the clerk. Each claim begins with a capital letter and ends with a period. Periods may not be used elsewhere in the claims except for abbreviations. A claim may be typed with the various elements subdivided in paragraph form.

There may be plural indentations to further segregate subcombinations or related steps. In general, the printed patent copies will follow the format used but printing difficulties or expense may prevent the duplication of unduly complex claim formats.

Reference characters corresponding to elements recited in the detailed description and the drawings may be used in conjunction with the recitation of the same element or group of elements in the claims. The reference characters, however, should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. The use of reference characters is to be considered as having no effect on the scope of the claims.

Many of the difficulties encountered in the prosecution of patent applications after final rejection may be alleviated if each applicant

includes, at the time of filing or no later than the first response, claims varying from the broadest to which he believes he is entitled to the most detailed that he is willing to accept.

Claims should preferably be arranged in order of scope so that the first claim presented is the broadest. Where separate species are claimed, the claims of like species should be grouped together where possible and physically separated by drawing a line between claims or groups of claims. (Both of these provisions may not be practical or possible where several species claims depend from the same generic claim.) Similarly, product and process claims should be separately grouped. Such arrangements are for the purpose of facilitating classification and examination.

The form of claim required in 37 CFR 1.75(e) is particularly adapted for the description of improvement type inventions. It is to be considered a combination claim. The preamble of this form of claim is considered to positively and clearly include all the elements or steps recited therein as a part of the claimed combination.

For rejections not based on prior art see § 706.03.

608.01(n) Dependent Claims [R–8]

37 CFR 1.75(c) reads as follows for applications filed prior to January 24, 1978:

(c) When more than one claim is presented, they may be placed in dependent form in which a claim may refer back to and further restrict a single preceding claim. Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim.

Multiple Dependent Claims

37 CFR 1.75(c) reads as follows for applications filed on and after January 24, 1978,

37 CFR 1.75 Claim(s)

* * * * *

(c) one or more claims may be presented in dependent form, referring back to and further limiting another claim or claims in the same application. Any dependent claim which refers to more than one other claim ("multiple dependent claim") shall refer to such other claims in the alternative only. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. For fee calculation purposes, a multiple dependent claim will be considered to be that number of claims to which direct reference is made therein. For fee calculation purposes, also, any claim depending from a multiple dependent claim will be considered to be that number of claims to which direct reference is made in that multiple dependent claim. Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of each of the particular claims in relation to which it is being considered.

* * * * *

Generally, a multiple dependent claim is a dependent claim which refers back in the alternative to more than one preceding independent or dependent claim.

The second paragraph of 35 U.S.C. section 112 has been revised in view of the multiple dependent claim practice introduced by the Patent Cooperation Treaty. Thus, section 112 authorizes multiple dependent claims in applications filed on and after January 24, 1978, as long as they are in the alternative form (e.g., "A machine according to claims 3 *or* 4, further comprising * * *"). Cumulative claiming (e.g., "A machine according to claims 3 *and* 4, further comprising * * *") is *not* permitted. A multiple dependent claim may refer in the alternative to only one set of claims. A claim such as "A device as in claims 1, 2, 3 or 4, made by a process of claims 5, 6, 7 or 8" is improper. Section 112 allows reference to only a particular claim. Furthermore, a multiple dependent claim may *not* serve as a basis for any other multiple dependent claim, either directly or indirectly. These limitations help to avoid undue confusion in determining how many prior claims are actually referred to in a multiple dependent claim.

Assume each claim example given below is from a different application.

Acceptable Multiple Dependent Claim Wording

Claim 5. A gadget according to claims 3 or 4, further comprising * * *

Claim 5. A gadget as in any one of the preceding claims, in which * * *

Claim 3. A gadget as in either claim 1 or claim 2, further comprising * * *

Claim 4. A gadget as in claim 2 or 3, further comprising * * *

Claim 16. A gadget as in claims 1, 7, 12 or 15, further comprising * * *

Claim 5. A gadget as in any of the preceding claims, in which * * *

Claim 8. A gadget as in one of claims 4–7, in which * * *

Claim 5. A gadget as in any preceding claim, in which * * *

Claim 10. A gadget as in any of claims 1–3 or 7–9, in which * * *

Claim 11. A gadget as in any one of claims 1, 2 or 7–10 inclusive, in which * * *

UNACCEPTABLE MULTIPLE DEPENDENT CLAIM WORDING

A. (Claim does not refer back in the alternative only)

Claim 5. A gadget according to claims 3 and 4, further comprising * * *

Claim 9. A gadget according to claims 1–3, in which * * *

Claim 9. A gadget as in claims 1 or 2 and 7 or 8, in which * * *

Claim 6. A gadget as in the preceding claims in which * * *

Claim 6. A gadget as in claims 1, 2, 3, 4 and/or 5, in which * * *

Claim 10. A gadget as in claims 1–3 or 7–9, in which * * *

B. (Claim does not refer to a preceding claim)

Claim 3. A gadget as in any of the following claims, in which * * *

Claim 5. A gadget as in either claim 6 or claim 8, in which * * *

C. (Reference to two sets of claims to different features)

Claim 9. A gadget as in claim 1 or 4, made by the process of claims 5, 6, 7, or 8, in which * * *

D. (Reference back to another multiple dependent claim)

Claim 8. A gadget as in claim 5 (claim 5 is a multiple dependent claim) or claim 7, in which * * *

The amendment of the second paragraph of section 112 further clarifies that the limitations or elements of each claim incorporated by reference into a multiple dependent claim must be considered separately. Thus, a multiple dependent claim, as such, does not contain all the limitations of all the alternative claims to which it refers, but rather, contains in any one embodiment only those limitations of the particular claim referred to for the embodiment under consideration. Hence, a multiple dependent claim must be considered in the same manner as a plurality of single dependent claims.

Restriction Practice

For restriction purposes, each embodiment of a multiple dependent claim will be considered in the same manner as a single dependent claim. Therefore, restriction may be required between the embodiments of a multiple dependent claim. Also, some embodiments of a multiple dependent claim may be held withdrawn while other embodiments are considered on their merits.

Handling of Multiple Dependent Claims by the Application Division

The Application Division is responsible for verifying whether multiple dependent claims filed with the application are in proper alternative form, that they depend only upon prior independent and single dependent claims and also for calculating the amount of the filing fee. A new form, PTO–1360, has been designed to be used in conjunction with the current fee calculation form PTO–875.

Handling of Multiple Dependent Claims by the Examining Group Clerical Staff

The examining group clerical staff is responsible for verifying compliance with the statute and rules of multiple dependent claims added by amendment and for calculating the amount of any additional fees required. This calculation should be performed on form PTO–1360.

There is no need for a group clerk to check the accuracy of the initial filing fee since this has already been verified by the Application Division when granting the filing date.

If a multiple dependent claim (or claims) is added in an amendment without the proper fee, the amendment should not be entered until the fee has been received. In view of the requirements for multiple dependent claims, no amendment containing new claims or changing the dependency of claims should be entered before checking whether the paid fees cover the costs of the amended claims. The applicant, or his attorney or agent, should be contacted to pay the additional fee in the same manner as currently in existence for such defects. Where a letter is written in insufficient fee situations, a copy of the multiple dependent claim fee calculation form PTO–1360 should be included for applicant's information.

Where the group clerk notes that the reference to the prior claims is improper in an added or amended multiple dependent claim, a notation should be made in the left margin next to the claim itself and the number 1, which is inserted in the "Dep. Claim" column of that amendment on form PTO–1360, should be circled in order to call this matter to the examiner's attention.

Handling of Dependent Claims by the Examiner

Should any multiple dependent claim be in an application filed prior to January 24, 1978 or include a claim association or claim structure that violates any of the prohibitions, the claim should be objected to as not being in proper form as required by 37 CFR 1.75 in the next Office action. Such an improper claim need not be further treated on the merits.

Public Law 94–131, the implementing legislation for the Patent Cooperation Treaty

amended 35 U.S.C. 112 to state that "a claim in dependent form shall contain a reference to a claim *previously set forth.*" The requirement to refer to a previous claim has existed only in 37 CFR 1.75(c) in the past.

The following procedures are to be followed by examiners when faced with claims which refer to numerically succeeding claims:

If any series of dependent claims contains a claim with an improper reference to a numerically following claim which cannot be understood, the claim referring to a following claim should normally be objected to and not treated on the merits.

However, in situations where a claim refers to a numerically following claim and the dependency is clear, both as presented and as it will be renumbered at issue, all claims should be examined on the merits and no objection as to form need be made. In such cases, the examiner will renumber the claims into proper order at the time the application is allowed. (See example B, below).

Any unusual problems should be brought to the supervisor's attention.

Example A

(Claims 4 and 6 should be objected to as not being understood and should not be treated on the merits)

1. Independent
2. Dependent on claim 5
3. Dependent on claim 2
4. "... as in any preceding claim"
5. Independent
6. Dependent on claim 4

Example B

NOTE: Parenthetical numerals represent the claim numbering for issue should all claims be allowed.

(All claims should be examined.)

1. (1) Independent
2. (5) Dependent on claim 5 (4)
3. (2) Dependent on claim 1 (1)
4. (3) Dependent on claim 3 (2)
5. (4) Dependent on either claim 1 (1) or claim 3 (2)

The following practice is followed by patent examiners when making reference to a dependent claim—either singular or multiple:

1. When identifying a singular dependent claim which does not include a reference to a multiple dependent claim, either directly or indirectly, reference should be made only to the number of the dependent claim.
2. When identifying the embodiments included within a multiple dependent claim, or a singular dependent claim which includes a reference to a multiple dependent claim, either directly or indirectly, each embodiment should be identified by using the number of the claims involved, starting with the highest, *to the extent necessary* to specifically identify each embodiment.
3. When all embodiments included within a multiple dependent claim or a singular dependent claim which includes a reference to a multiple dependent claim, either directly or indirectly, are subject to a common rejection, objection or requirement, reference may be made only to the number of the dependent claim.

The following table illustrates the current practice where each embodiment of each claim must be treated on an individual basis:

Claim Number	Claim Dependency	Identification: All Claims	Identification: Approved Practice
1	Independent	1	1
2	Depends from 1	2/1	2
3	Depends from 2	3/2/1	3
4	Depends from 2 or 3	4/2/1	4/2
		4/3/2/1	4/3
5	Depends from 3	5/3/2/1	5
6	Depends from 2, 3 or 5	6/2/1	6/2
		6/3/2/1	6/3
		6/5/3/2/1	6/5
7	Depends from 6	7/6/2/1	7/6/2
		7/6/3/2/1	7/6/3
		7/6/5/3/2/1	7/6/5

When all embodiments in a multiple dependent claim situation (claims 4, 6 and 7 above) are subject to a common rejection, objection or requirement, reference may be made only to the number of the individual dependent claim. For example, if 4/2 and 4/3 were subject to a common ground of rejection, reference should be made only to claim 4 in the statement of that rejection.

The provisions of 35 U.S.C. 132 require that each Office action make it explicitly clear what rejection, objection and/or requirement is applied to each claim embodiment.

Calculation of Fees When Multiple Dependent Claims are Presented, Use of Form PTO–1360

To assist in the computation of the fees for multiple dependent claims, a separate "Multiple Dependent Claim Fee Calculation Sheet," form PTO–1360, has been designed for use with the current "Patent Application Fee Determination Record", form PTO–875. Form PTO–1360 will be placed in the file wrapper by the Application Division where multiple dependent claims are in the application as filed. If multiple dependent claims are not included upon filing, but are later added by amendment, the examining group clerical staff will place the form in the file

→ wrapper. If there are multiple dependent claims in the application, the total number of independent and dependent claims for fee purposes will be calculated on form PTO–1360 and the total number of claims and number of independent claims is then placed on form PTO–875 for final fee calculation purposes.

If at least $65 was included with the application on filing, but the total fee is insufficient, a "Notice of Insufficient Fee", form PTO–1094, → is placed in the file wrapper by the Application Division as is currently done. The notice should be mailed by the examining group in accordance with established procedures.

Calculating Fees for Multiple Dependent Claims

Proper Multiple Dependent Claim

Amended section 41(a) of title 35, U.S.C., provides that claims in multiple dependent form may not be considered as single dependent claims for the purpose of calculating fees. Thus, a multiple dependent claim would be considered to be that number of dependent claims to which it refers. Any proper claim depending directly or indirectly from a multiple dependent claim would also be considered as the same number of dependent claims as referred to in the multiple dependent claim from which it depends.

Improper Multiple Dependent Claim

If any multiple dependent claim is improper, Application Division may indicate that fact by placing an encircled numeral "1" in the "Dep. Claims" column of form PTO–1360. The fee for any improper multiple dependent claim, whether it is defective for either not being in the alternative form or for being directly or indirectly dependent on a prior multiple dependent claim, will only be one, since only an objection to the form of such a claim will normally be made. This procedure also greatly

simplifies the calculation of fees. Any claim depending from an improper multiple dependent claim will also be considered to be improper and be counted as one dependent claim.

Fee calculation example

Claim Number		Ind.	Dep.
1	Independent	1	
2	Dependent on claim 1		1
3	Dependent on claim 2		1
4	Dependent on claim 2 or 3		2
5	Dependent on claim 4		2
6	Dependent on claim 5		2
7	Dependent on claim 4, 5 or 6		①
8	Dependent on claim 7		①
9	Independent	1	
10	Dependent on claim 1 or 9		2
11	Dependent on claim 1 and 9		①
	Total	2	13

Comments on Fee Calculation Example

Claim 1—This is an independent claim; therefore, a numeral "1" is placed opposite claim number 1 in the "Ind." column.

Claim 2—Since this is a claim dependent on a single independent claim, a numeral "1" is placed opposite claim number 2 of the "Dep." column.

Claim 3—Claim 3 is also a single dependent claim, so a numeral "1" is placed in the "Dep." column.

Claim 4—Claim 4 is a proper multiple dependent claim. It refers directly to two claims in the alternative, namely, claim 2 *or* 3. Therefore, a numeral "2" to indicate direct reference to two claims is placed in the "Dep." column opposite claim number 4.

Claim 5—This claim is a singularly dependent claim depending from a multiple dependent claim. For fee calculation purposes, such a claim is counted as being that number of claims to which direct reference is made in the multiple dependent claim from which it depends. In this case, the multiple dependent claim number 4 it depends from counts as 2 claims; therefore, claim 5 also counts as 2 claims. Accordingly, a numeral "2" is placed opposite claim number 5 in the "Dep." column.

Claim 6—Claim 6 depends indirectly from a multiple dependent claim 4. Since claim 4 counts as 2 claims, claim 6 also counts as 2 dependent claims. Consequently, a numeral "2" is placed in the "Dep." column after claim 6.

Claim 7—This claim is a multiple dependent claim since it refers to claims 4, 5 or 6. However, as can be seen by looking at the "2" in the "Dep." column opposite claim 4, claim 7 depends from a multiple dependent claim. This practice is improper under 35 U.S.C. 112 and Rule 1.75(c). Following the procedure for calculating fees for improper multiple dependent claims, a numeral "1" is placed in the "Dep." column with a circle drawn around it to alert the examiner that the claim is improper.

Claim 8—Claim 8 is improper since it depends from an improper claim. If the base claim is in error, this error cannot be corrected by adding additional claims depending therefrom. Therefore, a numeral "1" with a circle around it is placed in the "Dep." column.

Claim 9—Here again we have an independent claim which is always indicated with a numeral "1" in the "Ind." column opposite the claim number.

Claim 10—This claim refers to two independent claims in the alternative. A numeral "2" is therefore placed in the "Dep." column opposite claim 10.

Claim 11—Claim 11 is a dependent claim which refers to two claims in the conjunctive ("1 *and* 9") rather than in the alternative ("1 *or* 9"). This form is improper under 35 U.S.C. 112 and Rule 1.75(c). Accordingly, since claim 11 is improper, an encircled number "1" is placed in the "Dep." column opposite claim 11.

Calculation of Filing Fee

After the number of "Ind." and "Dep." claims are noted on form PTO–1360, each column is added. In this example, there are 2 independent claims and 13 dependent claims or a total of 15 claims. The number of independent and total claims can then be placed on form PTO–875 and the fee calculated. In this example, the total number of claims 15 minus 10 leaves 5, which is multiplied by $2 for an additional total claim fee of $10. The total number of independent claims in the example is 2, which minus 1 is 1, which times the $10 rate is $10. The total filing fee is therefore $65+$10+$10, or a total of $85.

The initial determination, for fee purposes, as to whether a claim is dependent must be made by persons other than examiners; it is necessary, at that time, to accept as dependent virtually every claim which refers to another claim, without determining whether there is actually a true dependent relationship. Such acceptance does not, however, preclude a subsequent holding by the examiner that a claim is not a proper dependent claim. Any claim which is in dependent form but which is so worded that it, in fact is not, as for example it does not include every limitation of the claim on which it depends, will be required to be canceled as not being a proper dependent claim; and cancellation of any further claim depending on such a dependent claim will be similarly required. The applicant may

thereupon amend the claims to place them in proper dependent form, or may redraft them as independent claims, upon payment of any necessary additional fee.

An essential characteristic of a proper dependent claim is that it shall include every limitation of the claim from which it depends (35 U.S.C. 112) or in other words that it shall not conceivably be infringed by anything which would not also infringe the basic claim. Thus, for example, if claim 1 recites the combination of elements *a*, *b*, *c* and *d*, a claim reciting the structure of claim 1 in which *d* was omitted or replaced by *e* would not be a proper dependent claim, even though it placed further limitations on the remaining elements or added still other elements.

Examiners are reminded that a dependent claim is directed to a combination including everything recited in the base claim *and* what is recited in the dependent claim. It is this combination that must be compared with the prior art, exactly as if it were presented as one independent claim.

The fact that a dependent claim which is otherwise proper might require a separate search or be separately classified from the claim on which it depends would not render it an improper dependent claim, although it might result in a requirement for restriction.

The fact that the independent and dependent claims are in different statutory classes does not, in itself, render the latter improper. Thus, if claim 1 recites a specific product, a claim for the method of making the product of claim 1 in a particular manner would be a proper dependent claim since it could not be infringed without infringing claim 1. Similarly, if claim 1 recites a method of making a product, a claim for a product made by the method of claim 1 could be a proper dependent claim. On the other hand, if claim 1 recites a method of making a specified product, a claim to the product set forth in claim 1 would not be a proper dependent claim if the product might be made in other ways. Note, that since § 1.75(c) requires the dependent claim to "further restrict" the preceding claim, this rule does not apply to product-by-process claims.

CLAIM FORM AND ARRANGEMENT

A singular dependent claim 2 could read as follows:

2. The product of claim 1 in which . . .

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a *dependent* claim should not be separated therefrom by any claim which does not also depend from said "dependent" claim. It should be kept in mind that a dependent claim may refer back to *any* preceding *independent* claim. These are the only restrictions with respect to the sequence of claims and, in general, applicant's sequence should not be changed. See § 608.01(j).

The numbering of dependent claims and the numbers of preceding claims referred to in dependent claims should be carefully checked when claims are renumbered upon allowance.

REJECTION AND OBJECTION

If the base claim has been cancelled, a claim which is directly or indirectly dependent thereon should be rejected as incomplete. If the base claim is rejected, the dependent claim should be *objected to* rather than rejected, if it is otherwise allowable.

608.01(o) Basis for Claim Terminology in Description

The meaning of every term used in any of the claims should be apparent from the descriptive portion of the specification with clear disclosure as to its import, and in mechanical cases it should be identified in the descriptive portion of the specification by reference to the drawing, designating the part or parts therein to which the term applies. A term used in the claims may be given a special meaning in the description. No term may be given a meaning repugnant to the usual meaning of the term.

Usually the terminology of the original claims follows the nomenclature of the specification, but sometimes in amending the claims or in adding new claims, new terms are introduced that do not appear in the specification. The use of a confusing variety of terms for the same thing should not be permitted.

New claims and amendments to the claims already in the case should be scrutinized not only for new matter but also for new terminology. While an applicant is not limited to the nomenclature used in the application as filed, yet whenever by amendment of his claims, he departs therefrom, he should make appropriate amendment of his specification so as to have therein clear support or antecedent basis for the new terms appearing in the claims. This is necessary in order to insure certainty in construing the claims in the light of the specification. Ex parte Kotler 1901 C.D. 62; 95 O.G. 2684. See 37 CFR 1.75, §§ 608.01(i) and 1302.01.

608.01(p) Completeness [R-5]

Newly filed applications obviously failing to disclose an invention with the clarity required are discussed in § 702.01.

A disclosure in an application, to be complete, must contain such description and details as to enable any person skilled in the art or science to which the invention pertains to make and use the invention as of its filing date, In re Glass, 181 USPQ 31; 492 F.2d 1228 (CCPA 1974).

While the prior art setting may be mentioned in general terms, the essential novelty, the essence of the invention, must be described in such details, including proportions and techniques where necessary, as to enable those persons skilled in the art to make and utilize the invention.

Specific operative embodiments or examples of the invention must be set forth. Examples and description should be of sufficient scope as to justify the scope of the claims. Markush claims must be provided with support in the disclosure for each member of the Markush group. Where the constitution and formula of a chemical compound is stated only as a probability or speculation, the disclosure is not sufficient to support claims identifying the compound by such composition or formula.

A complete disclosure should include a statement of utility. This usually presents no problem in mechanical cases. In chemical cases, varying degrees of specificity are required.

A disclosure involving a new chemical compound or composition must teach persons skilled in the art how to make the compound or composition. Incomplete teachings may not be completed by reference to subsequently filed applications.

A. Guidelines for Considering Disclosures of Utility in Drug Cases

General

These guidelines are set down to provide uniform handling of applications disclosing drug or pharmaceutical utility. They are intended to guide patent examiners and patent applicants as to criteria for utility statements. They deal with fundamental questions and are subject to revision and amendment if future case law indicates this to be necessary.

The following two basic principles shall be followed in considering matters relating to the adequacy of disclosure of utility in drug cases:

(1) The same basic principles of patent law which apply in the field of chemical arts shall be applicable to drugs, and

(2) The Patent and Trademark Office shall confine its examination of disclosure of utility to the application of patent law principles, recognizing that other agencies of the Government have been assigned the responsibility of assuring conformance to the standards established by statute for the advertisement, use, sale or distribution of drugs. *In re Krimmel*, 48 CCPA 1116, 292 F.2d 948, 130 USPQ 215 (1961); *In re Hartop et al.*, 50 CCPA 780, 311 F.2d 249, 135 USPQ 419 (1962).

A drug is defined by 21 U.S.C. 321(g)

> The term "drug" means (A) articles recognized in the official United States Pharmacopeia, official Homeopathic Pharmacopeia of the United States, or official National Formulary, or any supplement to any of them; and (B) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; and (C) articles (other than food) intended to affect the structure or any function of the body of man or other animals; and (D) articles intended for use as a component of any articles specified in clause (A), (B), or (C); but does not include devices or their components, parts, or accessories.

In addition, compositions adapted to be applied to or used by human beings, e.g., cosmetics, dentifrices, mouthwashes, etc., may be treated in the same manner as drugs subject to the conditions stated.

Any proof of a stated utility or safety required pursuant to these guidelines may be incorporated in the application as filed, or may be subsequently submitted by affidavit if and when required. The Patent and Trademark Office, in reaching its own independent decisions on questions of utility and how to use under 35 U.S.C. 101 and 112, will continue to avail itself of assistance and information from the Secretary of Health, Education, and Welfare as authorized by 21 U.S.C. 372(b), when necessary.

In accordance with the basic principles set forth above, the following procedures shall be followed in examining patent applications in the drug field with regard to disclosures relating to utility.

35 U.S.C. 101

Utility must be definite and in currently available form; (*Brenner* v. *Manson*, 383 U. S. 519, 148 USPQ 689) not merely for further investigation or research but commercial availability is not necessary. Mere assertions such as "therapeutic agents," (*In re Lorenz et al.*, 49 CCPA 1227, 305 F.2d 875, 134 USPQ 312; cf. *Ex parte Brockmann et al.*, 127 USPQ 57) "for pharmaceutical purposes," (*In re Diedrich*, 50

CCPA 1355, 318 F.2d 946, 138 USPQ 128) "biological activity," *In re Kirk et al.*, 54 CCPA 1119, 153 USPQ 48; *Ex parte Lanham*, 135 USPQ 106) "intermediate," (*In re Joly et al.*, 54 CCPA 1159, 153 USPQ 45; *In re Kirk et al.*, 54 CCPA 1119; 153 USPQ 48) and for making further unspecified preparations are regarded as insufficient.

If the asserted utility of a compound is believable on its face to persons skilled in the art in view of the contemporary knowledge in the art, then the burden is upon the examiner to give adequate support for rejections for lack of utility under this section (*In re Gazave*, 54 CCPA 1524, 154 USPQ 92). On the other hand, incredible statements (*In re Citron*, 51 CCPA 852, 325 F.2d 248, 139 USPQ 516; *In re Oberweger*, 28 CCPA 749, 115 F.2d 826, 47 USPQ 455; *Ex parte Moore et al.*, 128 USPQ 8) or statements deemed unlikely to be correct by one skilled in the art (*In re Ruskin*, 53 CCPA 872, 354 F.2d 395, 148 USPQ 221; *In re Pottier*, 54 CCPA 1293, 153 USPQ 407; *In re Novak et al.*, 49 CCPA 1283, 306 F.2d 924, 134 USPQ 335. See also, *In re Irons*, 52 CCPA 938, 340 F.2d 974, 144 USPQ 351) in view of the contemporary knowledge in the art will require adequate proof on the part of applicants for patents.

Proof of utility under this section may be established by clinical or *in vivo* or *in vitro* data, or combinations of these, which would be convincing to those skilled in the art (*In re Irons*, 52 CCPA 938, 340 F.2d 924, 144 USPQ 351; *Ex parte Paschall*, 88 USPQ 131; *Ex parte Pennell et al.*, 99 USPQ 56; *Ex parte Ferguson*, 117 USPQ 229; *Ex parte Timmis*, 123 USPQ 581). More particularly, if the utility relied on is directed *solely* to the treatment of humans, evidence of utility, if required, must generally be clinical evidence, (*Ex parte Timmis*, 123 USPQ 581) although animal tests may be adequate where the art would accept these as appropriately correlated with human utility (*In re Hartop et al.*, 50 CCPA 780, 311 F.2d 249, 135 USPQ 419; *Ex parte Murphy*, 134 USPQ 134). If there is no assertion of human utility, (*Blicke v. Treves*, 44 CCPA 753, 241 F.2d 718, 112 USPQ 472; *In re Krimmel*, 48 CCPA 1116, 292 F.2d 948, 130 USPQ 215; *In re Dodson*, 48 CCPA 1125, 292 F.2d 943, 130 USPQ 224; *In re Hitchings*, 52 CCPA 1141, 342 F.2d 80, 144 USPQ 637) or if there is an assertion of animal utility, (*In re Bergel et al.*, 48 CCPA 1102, 292 F.2d 955, 130 USPQ 206; *Ex parte Melvin*, 155 USPQ 47) operativeness for use on standard test animals is adequate for patent purposes.

Exceptions exist with respect to the general rule relating to the treatment of humans. For example, compositions whose properties are generally predictable from a knowledge of their components, such as laxatives, antacids and certain topical preparations, require little or no clinical proof (*Ex parte Harrison et al.*, 129 USPQ 172; *Ex parte Lewin*, 140 USPQ 70).

Although absolute safety is not necessary to meet the utility requirement under this section, a drug which is not sufficiently safe under the conditions of use for which it is said be be effective will not satisfy the utility requirement (*In re Hartop et al.*, 50 CCPA 780, 311 F.2d 249, 135 USPQ 419). Proof of safety shall be required only in those cases where adequate reasons can be advanced by the examiner for believing that the drug is unsafe, and shall be accepted if it establishes a reasonable probability of safety.

35 U.S.C. 112

A mere statement of utility for pharmacological or chemotherapeutic purposes may raise a question of compliance with section 112, particularly ". . . as to enable any person skilled in the art to which it pertains . . . to use the same." If the statement of utility contains within it a connotation of how to use, and/or the art recognizes that standard modes of administration are contemplated, section 112 is satisfied (*In re Johnson*, 48 CCPA 733, 282 F.2d 370, 127 USPQ 216; *In re Hitchings et al.*, 52 CCPA 1141, 342 F.2d 80, 144 USPQ 637) If the use disclosed is of such nature that the art is unaware of successful treatments with chemically analogous compounds, a more complete statement of how to use must be supplied than if such analogy were not present (*In re Mourea et al.*, 52 CCPA 1363, 345 F.2d 595, 145 USPQ 452; *In re Schmidt et al.*, 54 CCPA 1577, 153 USPQ 640). It is not necessary to specify the dosage or method of use if it is obvious to one skilled in the art that such information could be obtained without undue experimentation.

With respect to the adequacy of disclosure that a claimed genus possesses an asserted utility representative examples together with a statement applicable to the genus as a whole will ordinarily be sufficient if it would be deemed likely by one skilled in the art, in view of contemporary knowledge in the art, that the claimed genus would possess the asserted utility (*In re Oppenauer*, 31 CCPA 1248, 143 F.2d 974, 62 USPQ 297; *In re Cavallito et al.*, 48 CCPA 711, 282 F.2d 357, 127 USPQ 202; *In re Cavallito et al.*, 48 CCPA 720, 282 F.2d 363, 127 USPQ 206; *In re Schmidt*, 48 CCPA

1140, 293 F.2d 274, 130 USPQ 404; *In re Cavallito*, 49 CCPA 1335, 306 F.2d 505, 134 USPQ 370; *In re Surrey*, 54 CCPA 855, 370 F.2d 349, 151 USPQ 724; *In re Lund et al.*, 54 CCPA 1361, 153 USPQ 625). Proof of utility will be required for other members of the claimed genus only in those cases where adequate reasons can be advanced by the examiner for believing that the genus as a whole does not possess the asserted utility. Conversely, a sufficient number of representative examples, if disclosed in the prior art will constitute a disclosure of the genus to which they belong.

In the case of mixtures including a drug as an ingredient, or mixtures which are drugs, or methods of treating a specific condition with a drug, whether old or new, a specific example should ordinarily be set forth, which should include the organism treated. In appropriate cases, such an example may be inferred from the disclosure taken as a whole and/or the knowledge in the art (e.g., gargle).

Where the claimed compounds are capable of several different utilities and one use is adequately described in accordance with these guidelines, additional utilities will be investigated for compliance with sections 101 and 112 only if not believable on their face to those of ordinary skill in the art in view of the contemporary knowledge of the art. Failure to meet these standards may result in a requirement to cancel such additional utilities (*Ex parte Lanham*, 121 USPQ 223; *Ex parte Moore et al.*, 128 USPQ 8; *In re Citron*, 51 CCPA 852, 325 F.2d 248, 139 USPQ 516; *In re Gottlieb et al.*, 51 CCPA 1114, 328 F.2d 1016, 140 USPQ 665).

B. Incorporation By Reference

An application as filed must be complete in itself in order to comply with 35 U.S.C. 112; however this does not bar incorporation by reference. Ex parte Schwarze, 151 USPQ 426 (Bd. of Appeals, 1966). An application for a patent when filed may incorporate "essential material" by reference to (1) a United States patent or (2) an allowed U.S. application, subject to the conditions set forth below. "Essential material" is defined as that which is necessary to (1) support the claims, or (2) for adequate disclosure of the invention (35 U.S.C. 112). "Essential material" may not be incorporated by reference to (1) patents or applications published by foreign countries or regional patent offices, to (2) nonpatent publications, to (3) a U.S. patent or application which itself incorporates "essential material" by reference or to (4) a foreign application. See In re Fouche, 169 USPQ 429; 439 F.2d 1237 (CCPA 1971).

Nonessential subject matter may be incorporated by reference to (1) patents or application published by the United States or foreign countries or regional patent offices, (2) prior filed, commonly owned U.S. applications or (3) nonpatent publications, for purposes of indicating the background of the invention or illustrating the state of the art.

The referencing application must include (1) an abstract, (2) a brief summary of the invention, (3) an identification of the referenced patent or application, (4) at least one view in the drawing in those applications admitting of a drawing, and (5) one or more claims. Particular attention should be directed to specific portions of the referenced patent or application.

Complete Disclosure Filed

If an application is filed with a complete disclosure, essential material may be cancelled by amendment and the *same* material substituted by reference to a patent or a pending and commonly owned allowed application in which the issue fee has been paid. The amendment must be accompanied by an affidavit or declaration executed by the applicant or his attorney or agent stating that the material cancelled from the application is the *same* material that has been incorporated by reference.

Issue Fee Paid

If an application incorporates essential material by reference to a U.S. patent or a pending and commonly owned allowed U.S. application for which the issue fee has been paid, applicant will be required prior to examination to furnish the Patent and Trademark Office with a copy of the referenced material together with an affidavit or declaration executed by the applicant or his attorney or agent stating that the copy consists of the *same* material incorporated by reference in the referencing application. However, if a copy of a printed U.S. patent is furnished, no affidavit or declaration is required.

Issue Fee Not Paid

If an application incorporates essential material by reference to a pending and commonly owned application other than one in issue with the fee paid, applicant will be required prior to examination to amend the disclosure of the referencing application to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant or his attorney or agent stating that the amendatory material consists of the *same* material incorporated by reference in the referencing application.

Improper Incorporation

The filing date of any application wherein essential material is improperly incorporated by reference to a foreign application or patent or to a publication will not be affected because of the presence of such reference. In such a case, the applicant will be required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or his attorney or agent, stating that the amendatory material consists of the *same* material incorporated by reference in the referencing application. In re Hawkins, 486 F.2d 569, 179 USPQ 157; In re Hawkins, 486 F.2d 579, 179 USPQ 163; In re Hawkins, 486 F.2d 577, 179 USPQ 167, (CCPA, 1973).

Reliance upon a commonly assigned copending application by a different inventor may ordinarily be made for the purpose of completing the disclosure. See In re Fried et al, 141 USPQ 27, 51 CCPA 1118 (1964), and General Electric Company v. Brenner, 407 F. 2d 1258 159 USPQ 335 (CADC 1968).

Since a disclosure must be complete as of the filing date, subsequent publications or subsequently filed applications cannot be relied upon to establish a constructive reduction to practice.

C. Deposit of Microorganisms

Some inventions which are the subject of patent applications depend on the use of microorganisms which must be described in the specification in accordance with 35 U.S.C. 112. No problem exists when the microorganisms used are known and readily available to the public. When the invention depends on the use of a microorganism which is not so known and readily available, applicants must take additional steps to comply with the requirements of § 112.

In re Argoudelis, et al., 168 USPQ 99 (CCPA, 1970), accepted a procedure for meeting the requirements of 35 U.S.C. 112. Accordingly, the Patent and Trademark Office will accept the following as complying with the requirements of § 112 for an adequate disclosure of the microorganism required to carry out the invention:

(1) the applicant, no later than the effective U.S. filing date of the application, has made a deposit of a culture of the microorganism in a depository affording permanence of the deposit and ready accessibility thereto by the public if a patent is granted, under conditions which assure (a) that access to the culture will be available during pendency of the patent application to one determined by the Commissioner to be entitled thereto under 37 CFR 1.14 and 35 U.S.C. 122, and (b) that all restrictions on the availability to the public of the culture so deposited will be irrevocably removed upon the granting of the patent;

(2) such deposit is referred to in the body of the specification as filed and is identified by deposit number, name and address of the depository, and the taxonomic description to the extent available is included in the specification; and

(3) the applicant or his assigns has provided assurance of permanent availability of the culture to the public through a depository meeting the requirements of (1). Such assurance may be in the form of an averment under oath or by declaration by the applicant to this effect.

A copy of the applicant's contract with the depository may be required by the examiner to be made of record as evidence of making the culture available under the conditions stated above.

"D. Simulated or Predicted Test Results or Prophetic Examples

Simulated or predicted test results and prophetical examples (paper examples) are permitted in patent applications. Working examples correspond to work actually performed and may describe tests which have actually been conducted and results that were achieved. Paper examples describe the manner and process of making an embodiment of the invention which has not actually been conducted. Paper examples should not be represented as work actually done. No results should be represented as actual results unless they have actually been achieved. Paper examples should not be described using the past tense."

Note.—For problems arising from the designation of materials by trademarks and trade names, see § 608.01(v). [R-8]

608.01(q) Substitute or Rewritten Specification [R-8]

37 CFR 1.125. Substitute specification. If the number or nature of the amendments shall render it difficult to consider the case, or to arrange the papers for printing or copying, the examiner may require the entire specification or claims, or any part thereof, to be rewritten. A substitute specification will ordinarily not be accepted unless it has been required by the examiner.

The specification is sometimes in such faulty English that a new specification is necessary. in such instances a new specification should be required.

Under current practice, substitute specifications may be voluntarily filed by the applicant if he or she desires. A substitute specification

will normally be accepted by the Office even if it has not been required by the examiner. Examiners may also require a substitute specification where it is considered to be necessary.

However, any substitute page of the specification, or entire specification, filed must be accompanied by an affidavit (oath or declaration) indicating that no new matter was included. There is no obligation on the examiner to make a detailed comparison between the old and the new specifications for determining whether or not new matter has been added. If, however, an examiner becomes aware that new matter is present, objection thereto should be made.

The filing of a substitute specification rather than amending the original application has the advantage for applicants of eliminating the need to prepare an amendment of the specification. If word processing equipment is used by applicants, substitute specifications can be easily prepared. The Office receives the advantage of saving the time needed to enter amendments in the specification and a reduction in the number of printing errors.

A substitute specification should normally be entered. See § 714.20.

New matter in amendment, see § 608.04.

Application prepared for issue, see § 1302.02.

608.01(r) Derogatory Remarks About Prior Art Specification

The applicant may refer to the general state of the art and the advance thereover made by his invention, but he is not permitted to make derogatory remarks concerning the inventions of others. Derogatory remarks are statements disparaging the products or processes of any

particular person other than the applicant, or statements as to the merits or validity of applications or patents of another person. Mere comparisons with the prior art are not considered to be disparaging per se.

608.01(s) Restoration of Canceled Matter

Canceled text in the specification or a canceled claim can be restored only by presenting the canceled matter as a new insertion. See 37 CFR 1.124, § 714.24.

608.01(t) Use in Subsequent Application

A reservation for a future application of subject matter disclosed but not claimed in a pending application will not be permitted in the pending application, 37 CFR 1.79, § 608.01(e).

While a specification cannot be transferred to another application, drawings may be transferred from a prior application to a later case by the same inventor if they are no longer needed in the prior application, note §§ 608.02(i) to 608.02(k).

608.01(u) Use of Formerly Filed Incomplete Application

Parts of an incomplete application which have been retained by the Office may be used as part of a complete application if the missing parts are later supplied. See §§ 506 and 506.01.

608.01(v) Trademarks and Names

The expressions "trademarks" and "names used in trade" as used below have the following meanings:

Trademark: a word, letter, symbol or device adopted by one manufacturer or merchant and used to identify and distinguish his product from those of others. It is a proprietary word pointing distinctly to the product of one producer.

Names Used in Trade: a nonproprietary name by which an article or product is known and called among traders or workers in the art, although it may not be so known by the public generally. Names used in trade do not point to the product of one producer, but they identify a single article or product irrespective of producer.

Names used in trade are permissible in patent applications if:

(1) Their meanings are established by an accompanying definition which is sufficiently precise and definite to be made a part of a claim, or

(2) In this country, their meanings are well known and satisfactorily defined in the literature.

Condition (1) or (2) must be met at the time of filing of the complete application.

Trademarks

The relationship between a trademark and the product it identifies is sometimes indefinite, uncertain and arbitrary. The formula or characteristics of the product may change from time to time and yet it may continue to be sold under the same trademark. In patent specifications, every element or ingredient of the product should be set forth in positive, exact, intelligible language, so that there will be no uncertainty as to what is meant. Arbitrary trademarks which are liable to mean different things at the pleasure of manufacturers do not constitute such language.

However, if the product to which the trademark refers is otherwise set forth in such language that its identity is clear the examiners are authorized to permit the use of the trademark if it is distinguished from common descriptive nouns by capitalization. If the trademark has a fixed and definite meaning it constitutes sufficient identification unless some physical or chemical characteristic of the article or material is involved in the invention. In that event as also in those cases where the trademark has no fixed and definite meaning, identification by scientific or other explanatory language is necessary.

The matter of sufficiency of disclosure must be decided on an individual case by case basis. In re Metcalfe and Lowe, 161 USPQ 789; 869 O.G. 691 (CCPA 1969).

Where the identification of a trademark is introduced by amendment it must be restricted to the characteristics of the product known at the time the application was filed to avoid any question of new matter.

If proper identification of the product sold under a trademark, or a product referred to only by a name used in trade, is omitted from the specification and such identification is deemed necessary under the principles set forth above, the examiner should hold the disclosure insufficient and reject on the ground of insufficient disclosure any claims based on the identification of the product merely by trademark or by the name used in trade. If the product cannot be otherwise defined, an amendment defining the process of its manufacture may be permitted. Such amendments must be

supported by satisfactory showings establishing that the specific nature or process of manufacture of the product as set forth in the amendment was known at the time of filing of the application.

Although the use of trademarks having definite meanings is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks. The examiner should not permit the use of language such as "the product X (a descriptive name) commonly known as Y (trademark)" since such language does not bring out the fact that the latter is a trademark. Language such as "the product X (a descriptive name) sold under the trademark Y" is permissible.

The use of a trademark in the title of an application should be avoided as well as the use of a trademark coupled with the word "type"; i.e., "Band-Aid type bandage."

The owner of a trademark may be identified in the specification.

Group directors should reply to all trademark misuse complaint letters and forward a copy to the editor of this manual.

See appendix I for a partial listing of trademarks and the particular goods to which they apply.

608.02 Drawing

35 U.S.C. 113. Drawings. The applicant shall furnish a drawing where necessary for the understanding of the subject matter to be patented. When the nature of such subject matter admits of illustration by a drawing and the applicant has not furnished such a drawing, the Commissioner may require its submission within a time period of not less than two months from the sending of a notice thereof. Drawings submitted after the filing date of the application may not be used (i) to overcome any insufficiency of the specification due to lack of an enabling disclosure or otherwise inadequate disclosure therein, or (ii) to supplement the original disclosure thereof for the purpose of interpretation of the scope of any claim. (NOTE.—The above language relates only to applications filed on and after January 24, 1978.)

37 CFR 1.81. Drawings required. (a) The applicant for a patent is required to furnish a drawing of his invention where necessary for the understanding of the subject matter sought to be patented; this drawing must be filed with the application.

(b) Drawings may include illustrations which facilitate an understanding of the invention (for example, flow sheets in cases of processes, and diagrammatic views).

(c) Whenever the nature of the subject matter sought to be patented admits of illustration by a drawing without its being necessary for the understanding of the subject matter and the applicant has not furnished such a drawing, the examiner will require its submission within a time period of not less than two months from the date of the sending of a notice thereof.

(d) Drawings submitted after the filing date of the application may not be used to overcome any insufficiency of the specification due to lack of an enabling disclosure or otherwise inadequate disclosure therein, or to supplement the original disclosure thereof for the purpose of interpretation of the scope of any claim.

37 CFR 1.84. Standards for drawings.

(a) *Paper and ink.* Drawings must be made upon paper which is flexible, strong, white, smooth, nonshiny and durable. Two-ply and three-ply bristol board is preferred. The surface of the paper should be calendered and of a quality which will permit erasure and correction with India ink. India ink, or its equivalent in quality, is preferred for pen drawings to secure perfectly black solid lines. The use of white pigment to cover lines is not normally acceptable.

(b) *Size of sheet and margins.* The size of the sheets on which drawings are made may either be exactly 8½ by 14 inches (21.6 by 35.6 cm.) or exactly 21.0 by 29.7 cm. (DIN size A4). All drawing sheets in a particular application must be the same size. One of the shorter sides of the sheet is regarded as its top.

(1) On 8½ by 14 inch drawing sheets, the drawing must include a top margin of 2 inches (5.1 cm.) and bottom and side margins of ¼ inch (6.4 mm.) from the edges, thereby leaving a "sight" precisely 8 by 11¾ inches (20.3 by 29.8 cm.). Margin border lines are not permitted. All work must be included within the "sight". The sheets may be provided with two ¼ inch (6.4 mm.) diameter holes having their centerlines spaced 1$^{1}/_{16}$ inch (17.5 mm.) below the top edge and 2¾ inches (7.0 cm.) apart, said holes being equally spaced from the respective side edges.

(2) On 21.0 by 29.7 cm. drawing sheets, the drawing must include a top margin of at least 2.5 cm., a left side margin of 2.5 cm., a right side margin of 1.5 cm., and a bottom margin of 1.0 cm. Margin border lines are not permitted. All work must be contained within a sight size not to exceed 17 by 26.2 cm.

(c) *Character of lines.* All drawings must be made with drafting instruments or by a process which will give them satisfactory reproduction characteristics. Every line and letter must be durable, black, sufficiently dense and dark, uniformly thick and well defined; the weight of all lines and letters must be heavy enough to permit adequate reproduction. This direction applies to all lines however fine, to shading, and to lines representing cut surfaces in sectional views. All lines must be clean, sharp, and solid. Fine or crowded lines should be avoided. Solid black should not be used for sectional or surface shading. Freehand

work should be avoided wherever it is possible to do so.

(d) *Hatching and shading.* (1) Hatching should be made by oblique parallel lines spaced sufficiently apart to enable the lines to be distinguished without difficulty.

(2) Heavy lines on the shade side of objects should preferably be used except where they tend to thicken the work and obscure reference characters. The light should come from the upper left-hand corner at an angle of 45°. Surface delineations should be shown by proper shading, which should be open.

(e) *Scale.* The scale to which a drawing is made ought to be large enough to show the mechanism without crowding when the drawing is reduced in size to two-thirds in reproduction, and views of portions of the mechanism on a larger scale should be used when necessary to show details clearly; two or more sheets should be used if one does not give sufficient room to accomplish this end, but the number of sheets should not be more than is necessary.

(f) *Reference characters.* The different views should be consecutively numbered figures. Reference numerals (and letters, but numerals are preferred) must be plain, legible and carefully formed, and not be encircled. They should, if possible, measure at least one-eighth of an inch (3.2 mm.) in height so that they may bear reduction to one twenty-fourth of an inch (1.1 mm.); and they may be slightly larger when there is sufficient room. They should not be so placed in the close end complex parts of the drawing as to interfere with a thorough comprehension of the same, and therefore should rarely cross or mingle with the lines. When necessarily grouped around a certain part, they should be placed at a little distance, at the closest point where there is available space, and connected by lines with the parts to which they refer. They should not be placed upon hatched or shaded surfaces but when necessary, a blank space may be left in the hatching or shading where the character occurs that it shall appear perfectly distinct and separate from the work. The same part of an invention appearing in more than one view of the drawing must always be designated by the same character, and the same character must never be used to designate different parts. Reference signs not mentioned in the description shall not appear in the drawing, and vice versa.

(g) *Symbols, legends.* Graphical drawing symbols and other labeled representations may be used for conventional elements when appropriate, subject to approval by the Office. The elements for which such symbols and labeled representations are used must be adequately identified in the specification. While descriptive matter on drawings is not permitted, suitable legends may be used, or may be required, in proper cases, as in diagrammatic views and flowsheets or to show materials or where labeled representations are employed to illustrate conventional elements. Arrows may be required, in proper cases, to show direction of movement. The lettering should be as large as, or larger than, the reference characters.

(h) [Revoked]

(i) *Views.* The drawing must contain as many figures as may be necessary to show the invention; the figures should be consecutively numbered if possible in the order in which they appear. The figures may be plane, elevation, section, or perspective views, and detail views of portions or elements, on a larger scale if necessary, may also be used. Exploded views, with the separated parts of the same figure embraced by a bracket, to show the relationship or order of assembly of various parts are permissible. When necessary, a view of a large machine or device in its entirety may be broken and extended over several sheets if there is no loss in facility of understanding the view. Where figures on two or more sheets form in effect a single complete figure, the figures on the several sheets should be so arranged that the complete figure can be understood by laying the drawing sheets adjacent to one another. The arrangement should be such that no part of any of the figures appearing on the various sheets are concealed and that the complete figure can be understood even though spaces will occur in the complete figure because of the margins on the drawing sheets. The plane upon which a sectional view is taken should be indicated on the general view by a broken line, the ends of which should be designated by numerals corresponding to the figure number of the sectional view and have arrows applied to indicate the direction in which the view is taken. A moved position may be shown by a broken line superimposed upon a suitable figure if this can be done without crowding, otherwise a separate figure must be used for this purpose. Modified forms of construction can only be shown in separate figures. Views should not be connected by projection lines nor should centerlines be used.

(j) *Arrangement of views.* All views on the same sheet should stand in the same direction and, if possible, stand so that they can be read with the sheet held in an upright position. If views longer than the width of the sheet are necessary for the clearest illustration of the invention, the sheet may be turned on its side so that the top of the sheet with the appropriate top margin is on the right-hand side. One figure must not be placed upon another or within the outline of another.

(k) *Figure for Official Gazette.* The drawing should, as far as possible, be so planned that one of the views will be suitable for publication in the Official Gazette as the illustration of the invention.

(l) *Extraneous matter.* Identifying indicia (such as the attorney's docket number, inventor's name, number of sheets, etc.) not to exceed 2¾ inches (7.0 cm.) in width may be placed in a centered location between the side edges within three-fourths inch (19.1 mm.) of the top edge. Authorized security markings may be placed on the drawings provided they be outside the illustrations and are removed when the material is declassified.

Other extraneous matter will not be permitted upon the face of a drawing.

(m) *Transmission of drawings.* Drawings transmitted to the Office should be sent flat, protected by a sheet of heavy binder's board, or may be rolled for transmission in a suitable mailing tube; but must never be folded. If received creased or mutilated, new drawings will be required. (See § 1.152 for design drawings, § 1.165 for plant drawings, and § 1.174 for reissue drawings.)

37 CFR 1.86. Draftsman to make drawings. (a) Applicants are advised to employ competent draftsmen to make their drawings.

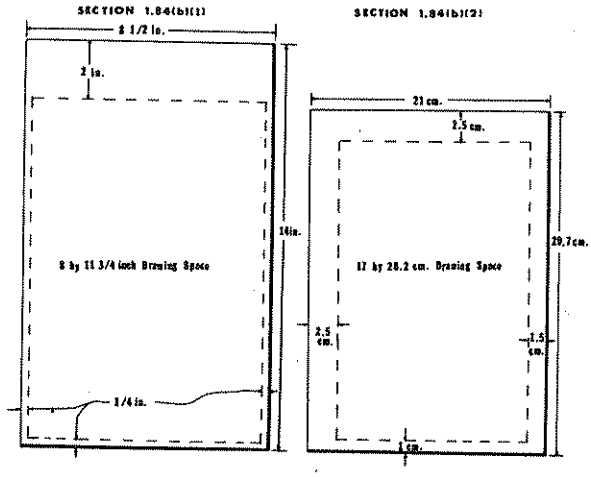
(b) The Office may furnish the drawings at the applicant's expense as promptly as its draftsmen can make them, for applicants who cannot otherwise conveniently procure them. (See § 1.21.)

Drawings on paper are acceptable although bristol board is preferred. If drawings on paper are submitted, any corrections thereto involving deletion of material must be made in the form of replacement sheets since paper does not normally permit erasures to be made.

Good quality copies made on office copiers are acceptable if the lines are uniformly thick, black, and solid.

Drawings are currently accepted in two different formats. It is however required that all drawings in a particular application be the same size for ease of handling and reproduction.

The two formats are broadly shown below.



Design patent drawings, 37 CFR 1.152, § 1503.02.

Plant patent drawings, 37 CFR 1.165, § 1606.

Reissue application drawings, §§ 608.02(k) and 1401.05.

Correction of drawings, § 608.02(p). Prints, preparation and distribution, §§ 508 and 608.02 (m). Prints, return of drawing, §§ 608.02(y).

For pencil notations of classification and name or initials of assistant examiner to be placed on drawings see § 717.03.

The filing of a divisional or continuation case under the provisions of 37 CFR 1.60 (unexecuted case), does not obviate the need for formal drawings. See § 608.08(b).

Definitions

A number of different terms are used when referring to drawings in patent applications. The following definitions are used in this Manual.

Original drawings: The drawing submitted with the application when filed. It may be either a formal or an informal drawing.

Substitute drawing: A drawing filed later than the filing date of an application. Usually submitted to replace an original informal drawing.

Formal drawing: A drawing in a form that complies with 37 CFR 1.84. Formal drawings are stamped "approved" by the Draftsman. They may be either 8½ by 14 inches or 21 by 29.7 cm. in size.

Informal drawing: A drawing which does not comply with the form requirements of 37 CFR 1.84. Drawings may be informal because they are not on the proper size sheets, the quality of the lines is poor, or for other reasons such as the size of reference elements. Such objections are made by the Draftsman on form PTO–948.

Drawing print: This term is used for the white paper print prepared by the Record Services Branch of the Office Services Division of all original drawings. The drawing prints contain the notation "Print of Drawing as originally filed" near the top. Drawing prints should be placed on the top on the right hand flap of the application file wrapper.

Interference print: This term is used to designate the copy prepared of the original drawings on colored, heavy weight card stock material. The interference prints are filed in file cabinets separate from the file wrappers and are used to make interference searches.

Drawing Symbols

37 CFR 1.84(g) indicates that graphic drawing symbols and other labeled representations may be used for conventional elements where appropriate, subject to approval by the Office. Also, suitable legends may be used, or may be required, in proper cases.

The Title 37, Code of Federal Regulations pamphlet includes a section entitled "Symbols for Draftsman" which shows various symbols which may be used in patent application drawings. Since this set of symbols is rather limited

in scope, attention is called to the below listed publications.

These publications have been reviewed by the Office and the symbols therein are considered to be generally acceptable in patent drawings. Although the Office will not "approve" all of the listed symbols as a group because their use and clarity must be decided on a case-by-case basis, these publications may be used as guides when selecting graphic symbols. Overly specific symbols should be avoided. Symbols with unclear meanings should be labeled for clarification.

These publications are available from the American National Standards Institute Inc., 1430 Broadway, New York, New York 10018.

The publications reviewed are the following:

Y32.2–1970 Graphic Symbols for Electrical & Electronics Diagrams

Y32.10–1967 Graphic Symbols for Fluid Power Diagrams

Y32.11–1961 Graphic Symbols for Process Flow Diagrams in the Petroleum & Chemical Industries

Y32.14–1962 Graphic Symbols for Logic Diagrams

Z32.2.3–1949 (R1953) Graphic Symbols for Pipe Fittings, Valves and Piping

Z32.2.4–1949 (R1953) Graphic Symbols for Heating, Ventilating & Air Conditioning

Z32.2.6–1950 Graphic Symbols for Heat-Power Apparatus

Applications Filed Without Drawings

Applications filed without drawings are initially inspected to determine whether or not a drawing, under the statute, is necessary before the applicant can be given a filing date. Doubtful cases are referred to the supervisory primary examiner for decision as to the need for such a drawing. If, after an application without a drawing has been received in the group, it is clear that a drawing is required, the application should be returned to the Application Division along with a memorandum indicating that a drawing is required. It has long been the practice to accept a process case (that is, a case having only process or method claims) which is filed without a drawing. The same practice has been followed in composition cases. Other situations where drawings are usually not considered essential for a filing date are:

I. *Coated articles or products.* Where the invention resides solely in coating or impregnating a conventional sheet, e.g., paper or cloth, or an article of known and conventional character with a particular composition, the application containing claims to the coated or impregnated sheet or article, unless significant details of structure or arrangement are involved in the article claims.

II. *Articles made from a particular material or composition.* Where the invention consists in making an article of a particular material or composition, unless significant details of structure or arrangement are involved in the article claims.

III. *Laminated structures.* Where the claimed invention involves only laminations of sheets (and coatings) of specified material unless significant details of structure or arrangement (other than the mere order of the layers) are involved in the article claims.

IV. *Articles, apparatus or systems where sole distinguishing feature is presence of a particular material.* Where the invention resides solely in the use of a particular material in an otherwise old article, apparatus or system recited broadly in the claims; for example,

a. Hydraulic system distinguished solely by the use therein of a particular hydraulic fluid;

b. Packaged sutures wherein the structure and arrangement of the package are conventional and the only distinguishing feature is the use of a particular fluid.

Illustration Subsequently Required

The acceptance of an application without a drawing does not preclude the examiner from requiring an illustration in the form of a drawing under § 1.81(c) or § 1.83(c). In requiring such a drawing, the examiner should clearly indicate that the requirement is made under § 1.81(c) or § 1.83(c) and be careful not to state that he is doing so "because it is necessary for the understanding of the invention," as that might give rise to an erroneous impression as to the completeness of the application as filed. Examiners making such requirements are to specifically require, as a part of the applicant's next response, at least an ink sketch or permanent print of any drawing proposed in response to the requirement, even though no allowable subject matter is yet indicated. This will afford the examiner an early opportunity to determine the sufficiency of the illustration and the absence of new matter. See § 1.118 and § 1.81(d). The description should of course be amended to contain reference to the new illustration. This may obviate further correspondence where an amendment places the case in condition for allowance, except for the formal requirement relating to the drawing. In the event of a final determination that there is nothing patentable in the case, the sketch and authorization for entry will not be forwarded to the Drafting Division.

Photographs

Photographs are not normally considered to be proper drawings. Photographs are acceptable for a filing date and are generally considered to be informal drawings. Photographs are only acceptable where they come within the special categories set forth in the paragraph immediately below. Photolithographs of photographs are never acceptable. See In re Taggart et al., 1957 C.D. 6, 725 O.G. 397 and In re Myers, 1959 C.D. 2, 738 O.G. 947.

Special Categories

The Patent and Trademark Office is willing to accept black and white photographs or photomicrographs (not photolithographs or other reproductions of photographs made by using screens) printed on sensitized paper in lieu of India ink drawings, to illustrate inventions which are incapable of being accurately or adequately depicted by India ink drawings restricted to the following categories: crystalline structures, metallurgical microstructures, textile fabrics, grain structures and ornamental effects. The photographs or photomicrographs must show the invention more clearly than they can be done by India ink drawings and otherwise comply with the rules concerning such drawings.

Such photographs to be acceptable must be made on photographic paper having the following characteristics which are generally recognized in the photographic trade: paper with a surface described as smooth; tint, white, or be photographs mounted on proper size bristolboard.

Color Drawings

Drawings in colors other than black do not come within the purview of 37 CFR 1.84. Unless the drawing requirements of 37 CFR 1.84 are waived, the Draftsman will not approve color drawings in a utility or design patent application. The examiner must object to the color drawings as being improper and require applicant either to cancel the drawings or to provide substitute black and white drawings.

Neither the examiner nor the Draftsman have the authority to waive or suspend drawing requirements to permit color drawings in utility and design applications. The applicant must file a petition under 37 CFR 1.183 requesting acceptance of the color drawings and a waiver of the requirements of 37 CFR 1.84. The petition and the application file must be sent to the Deputy Assistant Commissioner for Patents for decision. Only if the petition is granted will the Draftsman be authorized to approve the color drawings as to form.

Where color drawings have been transferred from a prior application to a newly submitted application, applicant must renew the petition under 37 CFR 1.183 even though a similar petition was filed in the prior application. Until the renewed petition is granted, the examiner must object to the color drawings as being improper.

Notifying Applicant

If the original drawings are informal, but may be admitted for examination purposes the draftsman indicates on 2-part form, PTO–948, what the informalities are and whether they can be corrected or whether new drawings are required. In either case the informal drawings are accepted as satisfying the requirements of 37 CFR 1.51.

The examiners are directed to advise the applicants by way of form PTO–948 (see § 707.-07(a)) in the first Office action of the conditions which render the drawing informal, and when indicated, that such drawings can be corrected so as to be acceptable. The examiner should not require new drawings because of their execution unless the necessity therefor has been indicated by the draftsman.

As soon as allowable subject matter is found, or an appeal is filed, the requirement for correction or new drawings should be insisted upon. If new drawings are required in a pro se application, before writing the action, the examiner should consult the draftsman to ascertain if, at that time, the new drawing could be prepared by the Patent and Trademark Office on request and, if so, the estimate of cost should be included in the action. Otherwise, the action should state:

> "Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the Drafting Division of the Patent and Trademark Office does not have the facilities at the present time, for preparing new drawings".

This procedure, by avoiding a fruitless request to have the Drafting Division prepare the new drawing, will promote earlier issuance of the patent.

Drawing Requirements

Revised 35 U.S.C. 113 relaxes the previous requirements for submission of drawings on filing under certain conditions. The first sentence of 35 U.S.C. 113 does require a drawing to be submitted upon filing where such drawing is necessary for the understanding of the invention. In this situation the lack of a drawing renders the

application incomplete and as such, the application cannot be given a filing date until the drawing is received. The second sentence of 35 U.S.C. 113 deals with the situation wherein a drawing is not necessary for the understanding of the invention but the case admits of illustration and no drawing was submitted on filing. The lack of the drawing in this situation does not render the application incomplete but rather is treated much in the same manner as an informality. The examiner should require such drawings in almost all such instances. Such drawings could be required during the processing of the application but do not have to be furnished at the time the application is filed. The applicant is allowed at least two months from the date of the letter requiring drawings to submit them.

Handling of Drawing Requirements Under the First Sentence of 35 U.S.C. 113

The Application Division examiner will make the initial decision in all new applications as to whether a drawing is "necessary" under the first sentence of 35 U.S.C. 113.

The determination under 35 U.S.C. 113 (first sentence) as to when a drawing is necessary will be handled in the Application Division according to the following procedure. The Application Division formality examiners will make the initial determination whether or not drawings are required for the understanding of the subject matter of the invention. Mechanical and electrical cases which lack a drawing, but in which one appears to be needed for an understanding of the invention, will be referred to the Classification and Routing Branch of the Application Division for advice. If the Classification and Routing Branch cannot reach a prompt and decisive response, the application will be referred to the supervisory primary examiner for a determination. When drawings are required, the application is treated as incomplete and the applicant is so informed by the Application Division. The filing date may be granted as of the date on which the drawings are received. However, the practice with respect to chemical cases is that, unless a drawing or drawing figure is specifically referred to in the specification of the application, the application will initially be considered by the Application Division formality examiner as being complete and will be given a filing date. Only in those chemical cases wherein there is a reference in the specification to a drawing and no drawing was present on filing will a chemical application initially be held incomplete and denied a filing date. If a drawing is later furnished, a filing date may be granted as of the date of receipt of such drawing.

If an examiner feels that a filing date should not have been granted in an application because it does not contain drawings, the matter should be brought to the attention of the Supervisory Primary Examiner (SPE) for review. If the SPE decides that drawings are required to understand the subject matter of the invention, the SPE should return the application to the Application Division with a memorandum requesting cancellation of the filing date and identifying the subject matter required to be illustrated.

608.02(a) New Drawing—When Required [R–5]

In design patent applications, informal drawings should be objected to by using form PTO–1094 and drawings should be required before examination begins. Utility patent applications should be taken up for the first Office action without a request for formal drawings unless the informal drawings are so unclear that they do not facilitate an understanding of the invention as to permit examination of the application. If at the time of the initial assignment of an application to an examiner's docket or if at the time the application is taken up for action the supervisory primary examiner believes the informal drawings to be of such a condition as to not permit reasonable examination of the application, applicant should be required to immediately submit formal drawings by using a form PTO–1094. However, if the informal drawings do not permit examination and the supervisory primary examiner believes the drawings are of such a character as to render the application defective under 35 U.S.C. 112, examination should begin immediately with a requirement for formal drawings and a rejection of the claims as not being in compliance with 35 U.S.C. 112 first paragraph being made.

Formal drawings should be required when there is an indication of allowable subject matter.

Form letter PTO–1094 should not accompany an examiner's action since forms PTOL–326 and 37 now provide items for requiring formal drawings.

Handling of Drawing Requirements Under the Second Sentence of 35 U.S.C. 113

35 U.S.C. 113 deals with the situation wherein the drawing is not necessary for the understanding of the invention, but the subject matter admits of illustration by a drawing and the applicant has not furnished a drawing. The

lack of the drawing in this situation does not render the application incomplete but rather is treated as an informality. A filing date will be accorded with the original presentation of the papers, despite the absence of drawings. In these situations, a drawing or further illustration will normally be required by the examiner. This should be done prior to examination in a separate letter in much the same manner as informal drawings are handled. The examiner should require additional drawings where appropriate as early as possible, since the possession of the additional drawings would facilitate the examination process. A letter requiring drawings may contain wording similar to the following:

> "The examiner has decided that the subject matter of this application admits of illustration by a drawing and that a drawing would facilitate the understanding of the subject matter disclosed. (Continue with a specific mention of those items of which drawings are desired.) Applicant is required to furnish a drawing under 37 CFR 1.81." (Incorporate in Office action or send a separate letter setting a two-month period for response.)

The applicant will be given at least two months from the date of such requirement to submit drawings. If the requirement for drawings is included in an Office action, the time for supplying the additional drawings will be the same as the time for response to the Office action.

Receipt of Drawing After the Filing Date

When a necessary additional illustration is small and may be added to the drawings on file, an additional sheet of drawing should not be required, but the examiner will ask that the proposed illustration be shown in a sketch, which showing will be transferred to one of the sheets of the drawings. If new matter is noticed by the examiner in a substitute or additional drawing the drawing should not be entered. It should be objected to as containing new matter. A new drawing without such new matter may be required if the examiner feels a drawing is needed under 37 CFR 1.81 or 1.83. The examiner's decision would be reviewable by petition to the Commissioner under 37 CFR 1.181. The decision on such a petition would be handled by the group director.

Untimely Filed Drawings

If a drawing is not timely received in response to a letter from the examiner which requires a drawing, the application becomes abandoned for failure to respond.

For the handling of additional, duplicate, or substitute drawing, see § 608.02(h).

608.02(b) Informal Drawings [R-5]

37 CFR 1.85. Informal drawings. The requirements of § 1.84 relating to drawings will be strictly enforced. A drawing not executed in conformity thereto, if suitable for reproduction, may be admitted but in such case the drawing must be corrected or a new one furnished, as required. The necessary corrections or mounting will be made by the Office upon applicant's request or permission and at his expense. (See §§ 1.21 and 1.165.)

In instances where the drawing is such that the prosecution can be carried on without the corrections, applicant is informed of the reasons why the drawing is objected to on Form PTO-948, and that the drawing is admitted for examination purposes only (see § 707.07(a)). To be fully responsive, an amendment must include a request for drawing corrections when there is an indication of allowable subject matter or an appeal is filed. See § 1.111(b).

Informal Drawings

To expedite filing, applicants sometimes submit applications with informal drawings. Such applications are accepted by Application Division for filing only, provided the informal drawings are readable and reproducible. Applicant is notified on form letter PTOL-1094 that formal drawings, in compliance with § 1.84 will be required when allowable subject matter is indicated using form PTOL-326 or PTOL-37. Form PTO-1094 will be used when the informal drawings are such as to render the application impractical to be examined.

Handling of New Drawings

In those situations where an application is filed with informal drawings, applicants are requested to wait until they receive their "Notice of Informal Drawings" form, PTO-1094 or the first Office action utilizing form PTOL-327 or PTOL-37 from the group art unit before submitting the formal drawings. The letter of transmittal accompanying the formal drawings should identify the group art unit indicated on form PTO-1094 or form PTOL-326. If the informal notification appears on form PTOL-37, the date of the mailing of the Notice of Allowance and Base Issue Fee as well as the Issue Batch Number must be given. Also, each sheet of drawing should include the serial number and group art unit in the upper right margin. In

the past, some drawings have been misdirected because the group art unit indicated on the filing receipt was used rather than that indicated on the informal notice forms.

In the event the drawings are not timely furnished, the application becomes abandoned after expiration of the two-month period referred to in the requirement letter. The group clerk prepares a letter of abandonment and the examiner is credited with a disposal.

The draftsman is the judge of drawings, as to the execution of the same, and the arrangement of the views thereon, while the examiner is the judge as to the sufficiency of the showing. The drawings received with an application are inspected by the draftsman. If the drawing is satisfactory, he stamps on each sheet "Approved by Draftsman." See also § 608.02.

RECEIPT OF SUBSTITUTE DRAWINGS

If the substitute drawings are timely filed, the clerk should immediately send the new substitute drawings with the file wrapper to the Draftsman for approval as to form.

If the application is allowed on the first action, the examiner should close prosecution under Ex parte Quayle and require formal drawings using form PTOL-37.

COMPARISON OF SUBSTITUTE DRAWINGS

In utility applications, the examination will normally be conducted using any informal drawings presented, the sufficiency of disclosure, as concerns the subject matter claimed, will be made by the examiner utilizing the informal drawings. ACCORDINGLY, IT IS APPLICANT'S RESPONSIBILITY TO SEE THAT NO NEW MATTER IS ADDED when submitting substitute drawings, since they will not normally be reviewed by an examiner. Of course, if the examiner notices new matter in the substitute drawings, appropriate action to have the new matter deleted should be undertaken.

608.02(c) Drawing Print Kept in File Wrapper [R-5]

The drawing prints must always be kept on top of the papers on the right side of the file wrapper so as to be visible upon opening the wrapper and to permit them to be easily detached.

Applications may be sent to issue or to the Abandoned Files Unit without the original drawing, if any, if the drawings cannot be located. For applications sent to issue with missing drawings see § 608.02(z). For applications sent to abandoned files, a notation should be made on the "Contents" portion of the file wrapper that the drawings were missing.

Upon initial processing, the original drawings are placed in the center portion of the application file wrapper underneath the application papers by the Customer Services Division. The formal drawings should be retained in this position for filing in all applications filed after January 1, 1972.

608.02(d) Complete Illustration in Drawings [R-5]

37 CFR 1.83. Content of drawing. (a) The drawing must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g. a labeled rectangular box).

(b) When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

(c) Where the drawings do not comply with the requirements of paragraphs (a) and (b) of this section, the examiner shall require such additional illustration within a time period of not less than two months from the date of the sending of a notice thereof. Such corrections are subject to the requirements of Section 1.81(d).

Likewise, any structural detail that is of sufficient importance to be described should be shown in the drawing. (Ex parte Good, 1911 C.D. 43; 164 O.G. 739.)

See also § 608.02(a).

608.02(e) Examiner Determines Completeness of Drawings

The examiner should see to it that the figures are correctly described in the brief description of the specification and that the reference characters are properly applied, no single reference character being used for two different parts or for a given part and a modification of such part. Every feature covered by the claims must be illustrated, but there should be no superfluous illustrations.

608.02(f) Modifications in Drawings

Modifications may not be shown in broken lines on figures which show in solid lines

another form of the invention. Ex parte Badger, 1901 C.D. 195; 97 O.G. 1596.

All modifications described must be illustrated, or the text canceled. (Ex parte Peck, 1901 C.D. 136; 96 O.G. 2409.) This requirement does not apply to a mere reference to minor variations nor to well-known and conventional parts.

608.02(g) Illustration of Prior Art

Figures showing the prior art are usually unnecessary and should be canceled. Ex parte Elliott, 1904 C.D. 103; 109 O.G. 1337. However, where needed to understand applicant's invention, they may be retained if designated by a legend such as "Prior Art."

608.02(h) Additional, Duplicate or Substitute Drawings [R–5]

When an amendment is filed stating that at the same time substitute or additional sheets of drawings are filed and such drawings have not been transmitted to the examining group, the docket clerk in the examining group should call the Application Division before entering the amendment to ascertain if the drawing was not received. In the next communication of the examiner the applicant is notified if the drawings have been received and whether or not the substitute or additional drawings have been entered in the application.

Additional and substitute drawings, together with the file wrapper, are routed through the Drafting Division where any defects in execution will be noted. If there are none, they will be stamped, "APPROVED BY DRAFTSMAN". When such drawings are considered by the examiner, it should be kept in mind that the "APPROVED" stamp applies only to the size and quality of paper, lines rough and blurred and other details of execution. The Draftsman will automatically return the cases to the examining groups. The additional or substitute drawing sheets should be entered by the application clerk after approval by both the draftsman and the examiner.

The examiner should not overlook such factors as new matter, the necessity for the additional sheets and consistency with other sheets. Clerks will routinely "enter" all additional and substitute sheets on the file wrapper. Additional and substitute sheets of drawings are also indicated on the face of the file wrapper under the heading "Parts of application separately filed". If the examiner decides that the sheets should not be entered, applicant is so informed, giving the reasons. The entries made by the clerk will be marked "(N.E.)".

If an additional sheet of drawing is considered unnecessary and the original drawing requires alterations which are taken care of in the proffered additional sheet, the latter may be used in lieu of the usual sketch required in making the correction of the original drawing.

If an old, large size 10 inch by 15 inch drawing is to be transferred to an application filed after January 1, 1972, the drawing together with the file wrapper, should be forwarded to the Draftsman. He will cut down the size of the drawing and forward the case for preparation of prints. Only the Draftsman may cut the oversize drawings to size.

For return of drawing, see § 608.02(y).

608.02(i) Transfer of Drawings From Prior Applications [R–5]

37 CFR 1.88. Use of old drawings. If the drawings of a new application are to be identical with the drawings of a previous application of the applicant on file in the Office, or with part of such drawings, the old drawings or any sheets thereof may be used if the prior application is, or is about to be, abandoned, or if the sheets to be used are canceled in the prior application. The new application must be accompanied by a letter requesting the transfer of the drawings, which should be completely identified.

Transfer of all drawings from a first pending application to another will be made only after a written declaration of abandonment has been filed in the first application.

Newly Submitted Application

The transfer of drawings to newly submitted applications that have not been forwarded to the examining group will be effected by the Application Division if no drawing prints are filed and the application is otherwise entitled to receive a filing date. The transfer of the drawings between applications under § 1.88 is processed in the examining groups if informal prints are filed with the application papers. A new application filed without drawings but having a request for transfer of drawings from a pending application must be accompanied by a written declaration of abandonment of the pending application under § 1.138. In order to insure copendency, such an abandonment may be worded as to become effective only after the transfer of the drawings has taken place. When a new application is filed with a request to transfer drawings under § 1.88, the application papers should include drawing prints to enable the Application Division to process the case before transfer of the formal drawings is effected.

The above practice applies to transfer of drawings from any application except where the issue fee has been paid, in which case an express abandonment (§ 1.138) must be filed together with a showing why the proposed action was not taken earlier. See § 1.313.

The name of the attorney on the drawing being transferred is not changed. See § 608.02(u).

REQUESTS FOR CHANGES TO THE DRAWINGS MADE IN PARENT APPLICATION

Transferred drawings will include all changes that have been physically made to the drawings at the time of transfer. Requests for changes that have not been previously made must be again requested. Accordingly, applicants should include a new detailed request to make necessary corrections when transferring drawings along with the transfer request.

When an application is sent to issue, any canceled sheet of drawing then in the case is placed on the bottom of the papers on the right hand flap of the file wrapper. Such canceled sheet is available for applicant's use in another application directed to its subject matter. It follows that, except as provided in § 1.174, drawings printed in a patent may not be transferred to a subsequent case.

608.02(j) Transfer of Canceled Sheets of Drawings to Divisional Application

In the case of a divisional application, if the drawing and descriptive matter pertaining thereto have been canceled from the parent case, the canceled sheet or sheets of drawing may be withdrawn and used as the original drawing of the divisional case. The sheets involved should be taken to the Drafting Division for erasure of the "CANCEL per" stamp.

608.02(k) Transfer of Drawings to Reissue

In a reissue application, the prints of the original or patented drawing may be used for examination purposes, and the formal transfer of the original drawing to the reissue application made when the reissue application is ready for issue, *provided* no change whatever, even so much as the priming of a reference character, or correction of an obvious error, is made in the drawing. If there is to be any change whatsoever in the drawing, a new drawing for the reissue must be filed.

If there is more than one sheet of original drawing, a required change on any sheet will preclude the use of the original drawings which must be kept in the condition existing at the time of issue of the original patent. See § 1401.05.

Transfer of the drawing is made as set forth in § 608.02(i), notation thereof being entered on the file wrapper of the original application.

The letter of transmittal in a reissue application should request transfer of the drawings, if such transfer is desired.

608.02(m) Drawing Prints [R-5]

Preparation and distribution of drawing prints is discussed in § 508.

Prints are made of the drawings of an acceptable application. These prints are marked "Prints of drawing as originally filed" and are entered in the application, given a paper number and kept on top of the papers on the right side of the file wrapper, see § 717.01(b).

All prints and inked sketches subsequently filed to be part of the record are endorsed with the date of their receipt in the Office and given their appropriate paper number.

The print being thus an official paper in the record should not be marked or in any way altered. The original drawing, of course, should not be marked up by the examiner. Where, as in an electrical wiring case, it is desirable, to identify the various circuits by different colors, or in any more or less complex case, it is advantageous to apply legends, arrows or other indicia, an additional print for such use should be made or ordered by the examiner and placed unofficially in the file.

Prints remain in the file at all times except as provided in § 608.02(c).

INTERFERENCE PRINTS

A print on heavy weight, colored paper is prepared of each drawing in all applications having a filing date after January 1, 1972. This interference print on colored paper is in addition to the drawing print on white paper.

Pink paper was used from January 1, 1972 to January 1, 1974. Buff colored paper has been used since January 1, 1974.

Primary examiners should place the classification and the name of the examiner on the interference print.

The interference prints are located above the white paper prints on the right hand portion of the file wrapper, when initially received in the examining group.

After the application has been classified and assigned to an examiner, the interference prints should be removed and placed in the drawing cabinets.

If an application has several sheets of drawings, the interference prints should be stapled together at their bottom edges before being filed. If the number of sheets of prints is too large to be stapled, a fastener should be placed through the holes at the top.

The time when the interference prints are removed from the drawing cabinets is determined by the group director.

The formal drawings submitted by applicant in cases filed after January 1, 1972 remain in the file wrapper.

608.02(n) Duplicate Prints in Patentability Report Cases [R-5]

In patentability report cases having drawings, the examiner to whom the case is assigned should normally obtain a duplicate set of the interference prints of the drawing for filing in the group to which the case is referred.

When a case that has had patentability report prosecution, is passed for issue or becomes abandoned, notification of this fact is given by the group having jurisdiction of the case to each group that submitted a patentability report. The examiner of each such reporting group notes the date of allowance or abandonment on his duplicate set of prints. At such time as these prints become of no value to the reporting group, they may be destroyed.

608.02(o) Dates Entered on Drawing [R-5]

The Incoming Mail Section (mail room) stamp and the "Corrected" stamp applied by the Drafting Division are impressed on the back of the drawings. If the drawings are filed in the Examining Group, the group receipt date stamp should be applied to the back of the drawing near the top.

The only date entered on the front of the drawings is the date of mailing of the Notice of Allowance, which is done by the Patent Issue Division. Under current practice, the clerk of the examining group does NOT enter any date when the case is "sent to issue".

Approval of the Drafting Division is indicated by a legend associated with the "O.G. Fig. Cl. . . . Sub. . . ." stamp on the front of each sheet.

608.02(p) Correction of Drawings

37 CFR 1.123. Amendments to the drawing. (a) No change in the drawing may be made except by permission of the Office. Permissible changes in the construction shown in any drawing may be made only by the Office. A sketch in permanent ink showing proposed changes, to become part of the record, must be filed. The paper requesting amendments to the drawing should be separate from other papers.

(b) Substitute drawings will not ordinarily be admitted in any case unless required by the Office.

NOTE.—Correction is deferrable, see § 608.02(b), correction at allowance and issue, see §§ 608.02(w) and 1302.05.

A canceled figure may be reinstated. An amendment should be made to the specification adding the brief description if a canceled figure is reinstated.

608.02(q) Conditions Precedent to Amendment of Drawing [R-5]

Correction and alterations in the disclosure of the drawings of a pending application may be made only by the draftsman.

No alterations will be permitted unless required by an examiner's letter in each case, or proposed in writing by applicant or his attorney or agent. In either case the alterations or corrections as indicated in the sketches filed with the request of the applicant or his attorney or agent must be given written approval by the examiner before the case is sent to the Drafting Division.

When applications are forwarded to the Drafting Division for corrections or approval, all drawings should be placed on the top of the papers on the center fold of the file wrapper and the request for correction (sketch, transmittal letter, examiner's amendment, etc.) should be attached to the outside of the file wrapper.

In those cases filed after January 1, 1972, which contain oversize drawings (larger than 8½ by 14 inches), the draftsman will cut down the edges of the drawing in order to allow it to be placed in the file wrapper. The draftsman will place two copies of a form letter in each application in which the drawings were cut. One copy should be mailed with the first Office letter as an attachment thereto and the other copy should be retained in the file wrapper.

The draftsman will also place two copies of the form in all applications having drawings with names within the illustration area. Names must be removed from the illustration area of all drawings in cases filed after January 1, 1972. The names will be removed from the drawing by the draftsman upon payment of the appropriate fee. Estimates of the fee may be obtained from the draftsman. Removal of the border lines will not be required since the

printer can easily mask them out when printing the drawing.

NOTE.—Disposition of orders for amendment of drawing, § 608.02(x).

608.02(r) Separate Letter to Draftsman [R–5]

Any request by the applicant for amendment of the drawing to cure defects must be embodied in a *separate* letter to the Draftsman. Otherwise the case, unless in other respects ready for issue, cannot be forwarded by the examiner to the Drafting Division, and applicant must be so advised in the next action by the examiner.

NOTE.—Changes which may require sketches, § 608.02(v).

608.02(s) Estimating Cost of Correcting Drawings [R–5]

The draftsman places an estimate of the cost of correcting any formal defects of the drawing on form PTO—948. See §§ 707.07 (a) and (c).

Files and drawings sent from the examining group to the draftsman for estimating the cost of correcting the drawing or of making new drawings will be retained by the draftsman only long enough to estimate the cost of the work.

If the examiner approves of a proposed correction of a drawing for which an estimate is requested the examiner's approval is noted on the order for the estimate, the order is attached to the outside of the file and the docket clerk of the group forwards the file and drawing to the draftsman. The draftsman will note the estimate on the order and also on the drawing. If the application is not up for action the draftsman sends the estimate to the applicant. If the application is up for action the draftsman does not send an estimate to the applicant, but the examiner should include the estimate in the next action.

When giving an estimate in a case where no allowable subject matter has been found the examiner should inform the applicant that no correction will be made until a claim is found to be allowable. If specifically requested by the applicant, the drawing will normally be corrected whether or not a claim is allowable or an appeal is filed.

If an application is ready for allowance except for a correction required by the draftsman, such as in a case where the lines are rough and blurred, the examiner will call the applicant's attorney to ascertain whether or not the attorney in the case has a deposit account and to receive authorization for the correction and to charge the deposit account by way of an examiner's amendment. If there is no such account, the examiner will obtain an estimate of the cost of this work from the draftsman even though applicant has not requested such an estimate, provided that no estimate has been previously furnished on form PTO–948. Including the estimate in the final requirement for correction of the drawing may avoid prolonging the prosecution.

608.02(t) Cancelation of Figures [R–5]

Cancelation of one or more figures which do not occupy entire sheets of the drawings is done by the clerk in the examining group who encloses a figure and its legend with a red ink line. No portion of the figure itself should be crossed by the red line. The words "CANCEL per" and the date of the amendment directing the cancelation or the date that substitute sheets are filed should be written in red ink within the red line. Cancelation of an entire sheet of drawings is done by stamping the words "CANCEL per" in the top right corner of the drawing within the marginal line. Canceled drawing sheets should be placed at the bottom of the papers on the right fold of the file wrapper.

When the cancelation of some of the figures from one sheet of drawings has left the remaining figures with an inartistic arrangement, the draftsmen should be consulted as to whether the remaining figures should be transferred to other sheets already in the case or shown in additional drawings. Cancelation of a figure may necessitate renumbering of the remaining figures.

608.02(u) Changing Name of Attorney on Drawing Forbidden [R–5]

Writing upon the drawings the names of attorneys subsequently appointed, so as to make it appear that their names were present when the drawings were originally filed, is prohibited.

This prohibition applies also where a drawing filed when names were permitted is transferred from one case to another having a different attorney.

608.02(v) Drawing Changes Which Require Sketches

When changes are to be made in the drawing itself, other than mere changes in reference

characters, designations of figures, or inking over lines pale and rough, a print or pen-and-ink sketch showing such changes in red ink must be filed. Ordinarily, broken lines may be changed to full without a sketch.

Sketches filed by an applicant and used by the draftsman for correction of the drawing will not be returned. All such sketches must be in ink or permanent prints.

A pencil sketch that is otherwise acceptable or a blueprint with the changes indicated in pencil, may be inked in by the Office Draftsman at applicant's request and at his expense.

608.02(w) Drawing Changes Which May Be Made by Examiner's Amendment Without Applicant's Authorization or a Sketch [R-5]

Where an application is ready for issue except for a slight defect in the drawing not involving change in structure, the examiner will prepare an examiner's amendment indicating the change made and note in pencil on the drawing the addition or alteration to be made and send the drawing to the draftsman for the required correction.

As a guide to the examiner the following corrections are illustrative of those that may be made by examiner's amendment without a sketch:

1. Adding two or three reference characters or exponents.
2. Changing one or two numerals or figure ordinals.
3. Removing superfluous matter.
4. Adding or reversing directional arrows.
5. Changing Roman Numerals to Arabic Numerals to agree with specification.
6. Adding section lines or brackets, where easily executed.
7. Changing lead lines.
8. Correcting misspelled legends.

In the event that several different kinds of changes are required or any of the listed changes are time consuming, authorization for the cost of the change must be reflected in the examiner's amendment.

608.02(x) Disposition of Orders for Amendment of Drawing [R-5]

Where the ordered correction of the drawing in a case up for action by the examiner is approved, the application and drawing are forwarded to the draftsman provided there is an allowable claim, an appeal has been filed, or there has been a specific request by applicant that the drawing be corrected regardless of whether or not a claim has been allowed or an appeal filed (§ 608.02(s)). Applicant's letter to the draftsman is attached to the outside of the file and the examiner writes on said letter "approved", with the date of approval and his or her initials, attaching, if appropriate, a "Special" tag (PTO-1101). If rough and blurred lines are to be corrected, the examiner should at that time indicate in the margin the figure to be printed in the Official Gazette. It is not necessary to carry such files to the draftsman. Messenger envelopes should be used. After the drawing has been corrected, the draftsman stamps the letter to the draftsman and the back of the drawing CORRECTED and returns the case to the examiner.

New Drawings Prepared by Patent and Trademark Office

When new drawings have been required in pending applications and have been prepared by the draftsman, a copy (print) is sent to the applicant.

Correction Not Approved

Where the correction is not approved, for example, because the proposed changes are erroneous, or involve new matter or (although otherwise proper) do not include all necessary corrections, the case and request for correction of drawing are not sent to the draftsman. The examiner's reasons for not approving the corrections to the drawing should be set forth in the next Office action.

608.02(y) Return of Drawing [R-5]

If there is a formal drawing in the case, non-entered drawings (except those originally filed) that have been finally denied admission will be returned to the applicant only at applicant's request.

A request for return of non-entered drawings must be filed within a reasonable time; otherwise the drawing may be disposed of at the discretion of the Commissioner.

When a drawing is to be returned, the file, the examiner's letter stating that the drawing is being returned, and the drawing are taken to the Drafting Division where the letter will be stamped and the drawing returned. The letter is mailed by the examining group.

Before drawings are returned prints are made and put in the application file.

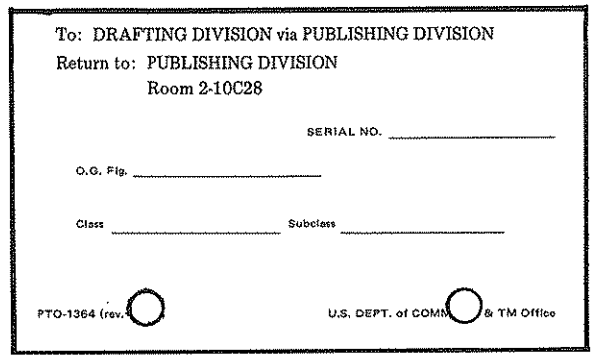
Drawings prepared by the Office Draftsman are not sent to the applicant for signature. See § 608.02(x).

608.02(z) Allowable Applications Needing Drawing Corrections or Formal Drawings [R-5]

Allowable applications can be turned in for counting and forwarding to the Patent Issue Division without the drawings having been corrected by the Office draftsman. When sending allowed applications to the Patent Issue Division which require drawing corrections, use yellow tag form PTO-1364 to indicate the Official Gazette figure and the classification. The approved formal drawings requiring correction should be placed as the top papers in the center fold of the file wrapper. The drawing correction instructions and the payment authorization, even if in an examiner's amendment, should be stapled to the inside left flap of the file wrapper over the area having the search information. Care should be taken to make certain that the corrections have been approved by the examiner. Such approval should be made by the examiner prior to counting the allowance of the application.

The yellow tag procedure normally should be used only where drawing corrections are involved. The yellow tag procedure may be used where the draftsman has objected to the drawing because of an informality such as improper shading or pale lines and has indicated that this can be corrected for x dollars.

The yellow tag procedure should not normally be used in other situations where the drawings have not been approved by the draftsman unless the examiner is quite sure that the draftsman will approve the new drawings or in the situation where the application was examined utilizing an informal drawing and the request for formal drawings was not made until the Notice of Allowance was mailed. The yellow tag procedure should not be used in design applications where the drawings have not been approved by the draftsman because of shading problems which can arise. If the substitute drawings are not approved by the draftsman, the application should be promptly taken up for action by the examiner.


To: DRAFTING DIVISION via PUBLISHING DIVISION
Return to: PUBLISHING DIVISION
Room 2-10C28
SERIAL NO. _____
O.G. Fig. _____
Class _____ Subclass _____
PTO-1364 (rev.
U.S. DEPT. of COMM & TM Office

If the application is to be forwarded to Allowed Files via Licensing and Review (L&R3 and Drafting Division, the following PALM 3 steps must be followed:

Enter transaction code 1221
Wand the application bar code label
Forward the application to L&R

If the application is to be forwarded to Allowed Files via drafting, the following PALM 3 steps must be followed:

Enter transaction code 1220
Wand the application bar code label
Enter transaction code 1034
Enter the drafting division's Location code 410
Wand the application bar code label
Forward the application to drafting

Applications Having Lost Drawings

A yellow tag is to be attached to the file wrapper and a "Drawing Missing" memo is to be stapled to the front of the file wrapper. The Notice of Allowance is verified, and printed using PALM 3 and the Notice is mailed to the applicant.

The application is then forwarded to Licensing and Review or the Allowed Files Section of the Patent Issue Division, as appropriate, using the PALM 3 transaction code after the application has been revised for issue.

Utility Patent Applications Receiving Formal Drawings After the Notice of Allowance

Where substitute drawings are received in utility patent applications examined with informal drawings and the Notice of Allowance was mailed prior to the receipt of the substitute drawings, the clerk should enter the substitute drawings into the application and forward the application to the Allowed Files Branch of the Patent Issue Division via Licensing and Review, if appropriate, using the yellow tag procedure. Submission to the examiner is not necessary unless an amendment accompanies the drawings which changes the specification, such as where the description of figures is added or canceled.

Borrowing Files From Drafting Division

Sometimes allowed files are sent to the draftsman from the Patent Issue Division. At times examiners have need to borrow these applications. These applications are identified by a box number at the draftsman. When borrowing these applications, examining corps personnel must inform the Patent Issue Division of their

identity, when they borrowed the application and when they returned it to the draftsman. In the past allowed files borrowed from the draftsman have at times been lost and the Patent Issue Division records were incomplete. In informing the Patent Issue Division, indicate the serial number of the application borrowed, the box number, name and location of the borrower, when it is expected to be returned, and the issue batch number. When the application file is returned to the draftsman, a telephone call to the Patent Issue Division indicating the return of the application to the Drafting Division will be sufficient notification. The Drafting Division will return the application to the Patent Issue Division after correction.

SECTION 1.312 AMENDMENTS

In handling Section 1.312 amendments, the examining corps should process drawings canceled in the normal manner. If there are corrections to the drawing, the examining corps should use the yellow tag procedure wherein a yellow tag is placed on the clip of the center fold of the file wrapper. The authorization for the drawing correction is stapled on the inside left flap of the file wrapper. After the examiner has approved the drawing correction, the application is forwarded to the Drafting Division. The Drafting Division, after making the drawing correction, will return the application directly to the Patent Issue Division.

608.03 Models, Exhibits, Specimens

35 U.S.C. 114 Models, specimens. The Commissioner may require the applicant to furnish a model of convenient size to exhibit advantageously the several parts of his invention.

When the invention relates to a composition of matter, the Commissioner may require the applicant to furnish specimens or ingredients for the purpose of inspection or experiment.

37 CFR 1.91. Models not generally required as part of application or patent. Models were once required in all cases admitting a model, as a part of the application, and these models became a part of the record of the patent. Such models are no longer generally required (the description of the invention in the specification, and the drawings, must be sufficiently full and complete, and capable of being understood, to disclose the invention without the aid of a model), and will not be admitted unless specifically called for.

37 CFR 1.92. Model or exhibit may be required. A model, working model, or other physical exhibit, may be required if deemed necessary for any purpose on examination of the application.

With the exception of cases involving perpetual motion, a model is not ordinarily required by the Office to demonstrate the operativeness of a device. If operativeness of a device is questioned, the applicant must establish it to the satisfaction of the examiner, but he may choose his own way of so doing.

A physical exhibit, not to be part of the case, is generally not refused except when bulky or dangerous.

37 CFR 1.93. Specimens. When the invention relates to a composition of matter, the applicant may be required to furnish specimens of the composition, or of its ingredients or intermediates, for the purpose of inspection or experiment.

608.03(a) Handling of Models, Exhibits and Specimens [R-5]

All models received in this Office, whether forming part of an application, or filed upon request from the examiner, must be received from the Supply and Receiving Unit and not from the applicant or his agent. It is necessary that all models should be taken to the Supply and Receiving Unit for proper recording in order that they may be located under subsequent inquiry and for final disposition. The examiners should, therefore, refuse to accept models from inventors or attorneys. Models properly received and entered in the records of the Supply and Receiving Unit will be delivered or will be picked up by the examining group.

When a model has been received in compliance with the official requirement, the date of its filing shall be entered on the file wrapper of the application.

When an exhibit or model is received, it will be forwarded from the Supply and Receiving Unit to the examining group. A label showing attorney's name and address should be attached to the model or exhibit so that it can be returned after prosecution of the application is closed. If the exhibit is too large to be kept in the group during prosecution of case, it may be sent to the Supply and Receiving Unit with instructions to indicate whether the exhibit is to be held or returned to sender.

37 CFR 1.94. Return of models, exhibits or specimens. Models, exhibits, or specimens in applications which have become abandoned, and also in other applications on conclusion of the prosecution, may be returned to the applicant upon demand and at his expense, unless it be deemed necessary that they be preserved in the Office. Such physical exhibits in contested cases may be returned to the parties at their expense. If not claimed within a reasonable time, they may be disposed of at the discretion of the Commissioner.

When a model is to be returned a letter should be written to applicant by the examining

group stating that it is being returned under separate cover and the Supply and Receiving Unit should be properly notified to return the model.

NOTE.—Disposition of exhibits which are part of the record, § 715.07(d).

Models, exhibits and specimens may be presented to the Office for purposes of interview and taken away by the attorney at the end of the interview. See § 713.08.

NOTE.—Plant specimens, § 1607, 37 CFR 1.166.

37 CFR 1.95. Copies of exhibits. Copies of models or other physical exhibits will not ordinarily be furnished by the Office, and any model or exhibit in an application or patent shall not be taken from the Office except in the custody of an employee of the Office specially authorized by the Commissioner.

608.04 New Matter

37 CFR 1.118. Amendment of disclosure. In original applications, all amendments of the drawings or specifications, and all additions thereto, must conform to at least one of them as it was at the time of the filing of the application. Matter not found in either, involving a departure from or an addition to the original disclosure, cannot be added to the application even though supported by a supplemental oath, and can be shown or claimed only in a separate application.

In establishing a disclosure applicant may rely not only on the specification and drawing as filed but also on the original claims if their content justifies it. Note § 608.01(l).

While amendments to the specification and claims involving new matter are ordinarily entered, such matter is required to be canceled from the descriptive portion of the specification, and the claims affected are rejected.

A "new matter" amendment of the drawing is ordinarily not entered. Neither is an additional or substitute sheet containing "new matter" even though stamped APPROVED by the Draftsman and provisionally entered by the clerk. See § 608.02(h).

The examiner's holding of new matter may be petitionable or appealable, § 608.04(c).

NOTE.—New matter in reissue application, § 1401.07. New matter in substitute specification, § 714.20.

608.04(a) Matter Not in Original Specification, Claims or Drawings

Matter not in the original specification, claims or drawings is usually new matter. Depending on circumstances such as the adequacy of the original disclosure, the addition of inherent characteristics such as chemical or physical properties, a new structural formula or a new use may be new matter. See Ex parte Vander Wal et al., 1956 C.D. 11; 705 O.G. 5 (physical properties), Ex parte Fox, 1960 C.D. 28; 761 O.G. 906 (new formula) and Ex parte Ayers et al., 108 USPQ 444 (new use). For rejection of claim involving new matter see § 706.03(o).

NOTE.—Completeness of disclosure, § 608.01(p); Trademarks and trade names, § 608.01(v).

608.04(b) New Matter by Preliminary Amendment

An amendment is sometimes filed along with the filing of the application. Such amendment does not enjoy the status as part of the original disclosure. Its test as to involving new matter is the same as though filed on a subsequent date. Ex parte Leishman, 137 Ms. 336, Pat. No. 1,581,937, and Ex parte Adams, Pat. No. 1,789,921.

608.04(c) Review of Examiner's Holding of New Matter

Where the new matter is confined to amendments to the specification, review of the examiner's requirement for cancellation is by way of petition. But where the alleged new matter is introduced into or affects the claims, thus necessitating their rejection on this ground, the question becomes an appealable one, and should not be considered on petition even though that new matter has been introduced into the specification also. 37 CFR 1.181 and 1.191 afford the explanation of this seemingly inconsistent practice as affecting new matter in the specification.

608.05 Deposit of Computer Program Listings [R–5]

37 CFR 1.96 Submission of computer program listings. Descriptions of the operation and general content of computer program listings should appear in the description portion of the specification. A computer program listing for the purpose of these rules is defined as a print-out that lists in appropriate sequence the instructions, routines, and other contents of a program for a computer. The program listing may be either in machine or machine-independent (object or source) language which will cause a computer to perform a desired procedure or task such as solve a problem, regulate the flow of work in a computer, or control or monitor events. Computer program listings may be

submitted in patent applications in the following forms:

(a) *Material which will be printed in the patent.* If the computer program listing is contained on 10 printout pages or less, it must be submitted either as drawings or as part of the specification.

(1) *Drawings.* The listing may be submitted in the manner and complying with the requirements for drawings as provided in Section 1.84. At least one figure numeral is required on each sheet of drawing.

(2) *Specification.* (i) The listing may be submitted as part of the specification in accordance with the provisions of Section 1.52, at the end of the description but before the claims.

(ii) The listing may be submitted as part of the specification in the form of computer printout sheets (commonly 14 by 11 inches in size) for use as "camera ready copy" when a patent is subsequently printed. Such computer printout sheets must be original copies from the computer with dark solid black letters not less than 0.21 cm high, on white, unshaded and unlined paper, the printing on each sheet must be limited to an area 9 inches high by 13 inches wide, and the sheets should be submitted in a protective cover. When printed in patents, such computer printout sheets will appear at the end of the description but before the claims and will usually be reduced about ½ in size with two printout sheets being printed as one patent specification page. Any amendments must be made by way of submission of a substitute sheet if the copy is to be used for camera ready copy.

(b) *As an appendix which will not be printed.* If a computer program listing printout is 11 or more pages long, applicants may submit such listing in the form of microfiche, referred to in the specification (see § 1.77(c)(2)). Such microfiche filed with a patent application is to be referred to as a "microfiche appendix." The "microfiche appendix" will not be part of the printed patent. Reference in the application to the "microfiche appendix" should be made at the beginning of the specification at the location indicated in § 1.77(c)(2). Any amendments thereto must be made by way of revised microfiche. All computer program listings submitted on paper will be printed as part of the patent.

(1) *Availability of appendix.* Such computer program listings on microfiche will be available to the public for inspection, and paper or microfiche copies thereof will be separately available for purchase, after a patent based on such an application is granted or the application is otherwise made publicly available.

(2) *Submission requirements.* Computer-generated information submitted as an appendix to an application for patent shall be in the form of microfiche in accordance with the standards set forth in the following American National (ANSI) or National Micrographics Association (NMA) Standards (Note: As new editions of these standards are published, the latest shall apply):

ANSI PH 1.28–1976—Specifications for Photographic Film for Archival Records, Silver-Gelatin Type, on Cellulose Ester Base.

ANSI PH 1.41—1976 Specifications for Photographic Film for Archival Records, Silver-Gelatin Type, on Polyester Base.

NMA–MS1 (1971) Quality Standards for Computer Output Microfilm.

ANSI/NMA MS2 (1978) Format and Coding Standards for Computer Output Microfilm.

NMA MS5 (ANSI PH 5.9–1975) Microfiche of Documents.

ANSI PH 2.19 (1959)—Diffuse Transmission Density.

except as modified or clarified below:

(i) Either Computer-Output-Microfilm (COM) output or copies of photographed paper copy may be submitted. In the former case, NMA standards MS1 and MS2 apply; in the latter case, standard MS5 applies.

(ii) Film submitted shall be first generation (camera film) negative appearing microfiche (with emulsion on the back side of the film when viewed with the images right reading).

(iii) Reduction ratio of microfiche submitted should be 24:1 or a similar ratio where variation from said ratio is required in order to fit the documents into the image area of the microfiche format used.

(iv) Film submitted shall have a thickness of at least .005 inches (0.13 mm) and not more than .009 inches (0.23 mm) for either cellulose acetate base or polyester base type.

(v) Both microfiche formats A1 (98 frames, 14 columns x 7 rows) and A3 (63 frames, 9 columns x 7 rows) which are described in NMA standard MS2 (A1 is also described in MS5) are acceptable for use in preparation of microfiche submitted.

(vi) At least the left-most ⅓ (50 mm x 12 mm) of the header or title area of each microfiche submitted shall be clear or positive appearing so that the Patent and Trademark Office can apply serial number and filing date thereto in an eye-readable form. The middle portion of the header shall be used by applicant to apply an eye-readable application identification such as the title and/or the first inventor's name. The attorney's docket number may be included. The final right-hand portion of the microfiche shall contain sequence information for the microfiche, such as 1 of 4, 2 of 4, etc.

(vii) Additional requirements which apply specifically to microfiche of filmed paper copy:

(A) The first frame of each microfiche submitted shall contain a standard test target which contains five NBS Microcopy Resolution Test Charts (No. 1010A), one in the center and one in each corner. See illustration on page 2 of NMA Recommended Practice MS104, Inspection and Quality Control of First Generation Silver Halide Microfilm. See also paragraph 7 of NMA–MS5.

(B) The second frame of each microfiche submitted must contain a fully descriptive title and the inventor's name as filed.

(C) The pages or lines appearing on the microfiche frames should be consecutively numbered.

(D) Pagination of the microfiche frames shall be from left to right and from top to bottom.

(E) At a reduction of 24:1 resolution of the original microfilm shall be at least 120 lines per mm (5.0 target) so that reproduction copies may be expected to comply with provisions of paragraph 7.1.4. of NMA Standard MS5.

(F) Background density of negative appearing camera master microfiche of filmed paper documents shall be within the range 0.9 to 1.2 and line density should be no greater than 0.08. The density shall be visual diffuse density as measured using the method described in ANSI Standard PH 2.19.

(G) An index, when included, should appear in the last frame (lower right hand corner when data is right-reading) of each microfiche. See NMA–MS5, paragraph 6.6.

(viii) Microfiche generated by Computer Output Microfilm (COM).

(A) Background density of negative-appearing COM-generated camera master microfiche shall be within the range of 1.5 to 2.0 and line density should be no greater than 0.2. The density shall be visual diffuse density as described in ANSI PH 2.19.

(B) The first frame of each microfiche submitted should contain a resolution test frame in conformance with NMA standard MS1.

(C) The second frame of each microfiche submitted must contain a fully descriptive title and the inventor's name as filed,

(D) The pages or lines appearing on the microfiche frames should be consecutively numbered.

(E) It is preferred that pagination of the microfiche frames be from left to right and top to bottom but the alternative, i.e., from top to bottom and from left to right, is also acceptable.

(F) An index, when included, should appear on the last frame (lower right hand corner when data is right reading) of each microfiche.

(G) Amendment of microfiche must be made by way of replacement microfiche.

The Rules of Practice in Patent Cases have been amended by adding a new section 1.96 to provide special procedures for presentation of computer program listings in the form of microfiche in patent applications. Use of microfiche is desirable in view of the number of computer program listings being submitted as part of the disclosure in patent applications. Such listings are often several hundred pages in length. By filing and publishing such computer program listings on microfiche rather than on paper, substantial cost savings can result to the applicants, the public, and the Patent and Trademark Office.

Background

A computer program listing, as used in these rules, means the printout that lists, in proper sequence, the instructions, routines, and other contents of a program for a computer. The listing may be either in machine or machine-independent (object or source) programming language which will cause a computer to perform a desired task, such as solving a problem, regulating the flow of work in a computer, or controlling or monitoring events. The general description of the computer program listing will appear in the specification while computer program listing may appear either directly or as a microfiche as appendix to the specification and be incorporated into the specification by reference.

Discussion of the Background and Major Issues Involved

The provisions of 37 CFR 1.52 and 1.84 for submitting specifications and drawings on paper have been found suitable for most patent applications. However, when lengthy computer program listings must be disclosed in a patent application in order to provide a complete disclosure, use of paper copies can become burdensome.

The cost of printing long computer programs in patent documents is also very expensive to the Patent and Trademark Office. Likewise, the issue fee, which must be paid by the applicant, is based on the number of pages and may be correspondingly high.

In the past, all disclosures part of a patent application were presented on paper with the exception of microorganisms. Under section 1.96, several different methods for submitting computer program listings, including the use of microfiche are set forth.

Relatively short computer program listings (10 pages or less) must be submitted on paper and will be printed as part of the patent. If the computer program listing is 11 or more pages in length, it may be submitted on either paper or microfiche, although microfiche is preferred.

Copies of publicly available computer program listings will be available from the Patent and Trademark Office at a cost of one dollar per microfiche or on paper at a cost of 30 cents per page. These costs represent the estimated costs to the Office of furnishing the copies.

Other Information

The micrographic standards referred to in section 1.96(b)(2) may be obtained from either the National Micrographic Association, 8719

Colesville Road, Silver Spring, Maryland, 20910 or the American National Standards Institute, 1430 Broadway, New York, New York 10018.

The effect of § 1.96 is that if a computer program listing (printout) is 11 or more pages long, the applicant may submit such listing in the form of microfiche. Relatively short computer program listings (10 pages or less) must be submitted on paper and will be printed as part of the patent, as in the past. When the computer program listing is 11 or more pages in length, it may be submitted on either paper or microfiche, although microfiche is preferred. A microfiche filed with a patent application will be referred to as a "Microfiche Appendix," and will be identified as such on the front page of the patent, but will not be part of the printed patent. "Microfiche Appendix" denotes the total microfiche, whether only one, or two or more. One microfiche is equivalent to a maximum of either 63 (9 x 7) or 98 (14 x 7) frames (pages), or less.

The face of the file jacket will bear a label to denote that a Microfiche Appendix is included in the application. A statement must be included in the specification to the effect that a microfiche appendix is included in the application. The specification entry must appear at the beginning of the specification, immediately following any cross reference to related applications, 37 CFR 1.77(c)(2). The patent front page and the Official Gazette entry will both contain information as to the number of microfiche and frames of computer program listings appearing in the microfiche appendix.

When an application containing microfiche is received in the Mail and Correspondence Section, a special pocket will be affixed to the center section of the inside of the file wrapper underneath all papers, and the microfiche inserted therein. The application file will then proceed on its normal course, and when it reaches the Application Division, a label which sticks up above the file wrapper will be placed at the center section of the face of the wrapper. When the application file reaches the Customer Services Division, the Microfiche Appendix label will be placed on the face of the file wrapper. When the Allowed Files Unit of Patent Issue Division receives the application file, the person placing the patent number on the face of the file, upon seeing the Microfiche Appendix label, will give the file to the Supervisor who will call Customer Services Division and give the serial number and patent number, and request copies of the microfiche. Customer Services Division personnel will then put the patent number on the microfiche(s), making certain each microfiche is the most recent, and numbering each correctly, e.g., 1 of 1, 1 of 2, etc. Upon completion, two copies will be produced and provided to Allowed Files—one for the grant head and one for the file wrapper.

At the time of assembly, the Microfiche Appendix will be placed inside the grant head behind the patent grant for eyeletting, ribboning, and mailing to the patentee/attorney. During the signing of the grant heads by the Attesting Officer, the patent will be checked to assure proper assembly prior to mailing.

609 Prior Art Statement

37 CFR 1.97 Filing of prior art statement. (a) As a means of complying with the duty of disclosure set forth in § 1.56, applicants are encouraged to file a prior art statement at the time of filing the application or within three months thereafter. The statement may either be separate from the specification or may be incorporated therein.

(b) The statement shall serve as a representation that the prior art listed therein includes, in the opinion of the person filing it, the closest prior art of which that person is aware; the statement shall not be construed as a representation that a search has been made or that no better art exists.

37 CFR 1.98 Content of prior art statement. (a) Any statement filed under § 1.97 or § 1.99 shall include: (1) A listing of patents, publications or other information and (2) a concise explanation of the relevance of each listed item. The statement shall be accompanied by a copy of each listed patent or publication or other item of information in written form or of at least the portions thereof considered by the person filing the statement to be pertinent.

(b) When two or more patents or publications considered material are substantially identical, a copy of a representative one may be included in the statement and others merely listed. A translation of the pertinent portions of foreign language patents or publications considered material should be transmitted if an existing translation is readily available to the applicant.

37 CFR 1.99 Updating of prior art statement. If prior to issuance of a patent an applicant, pursuant to his duty of disclosure under § 1.56, wishes to bring to the attention of the Office additional patents, publications or other information not previously submitted, the additional information should be submitted to the Office with reasonable promptness. It may be included in a supplemental prior art statement or may be incorporated into other communications to be considered by the examiner. Any transmittal of additional information shall be accompanied by explanations of relevance and by copies in accordance with the requirements of § 1.98.

Sections 1.97 through 1.99 became effective on July 1, 1977, and provide an ideal mechanism for complying with the duty of disclosure under

37 CFR 1.56. The statements should be submitted in accordance with the following guidelines:

1) Prior art statements should be submitted at the time of filing the application or within three months thereafter if the filing receipt has been received. If the filing receipt has not been received within three months after the time of filing, the prior art statement should be submitted with reasonable promptness (within two months) after receiving the filing receipt so that it is available to the examiner when the first Office action is prepared. If filed separately, the prior art statement should include the Group Art Unit to which the application is assigned as indicated on the filing receipt. Prior art statements may be separate from the specification or incorporated therein. The statement shall serve as a representation that the person preparing it has included therein what he or she believes to be the closest prior art of which he or she is aware and shall not be construed as a representation that no better art exists or that a search has been made. If the first action in the application is received prior to three months after filing of the application and no prior art statement has been submitted, the prior art statement may be submitted with the response to the first action and be considered timely.
2) The statement shall include a listing of of the patents, publications or other information which the preparer of the statement wishes to cite and a concise explanation of the relevance of each listed item. Copies of the pertinent portions of all listed documents shall be supplied along with the statement, both when incorporated into the specification and when filed separately. If two or more patents or publications considered material are substantially identical, a copy of a representative one shall be included with the statement and others may merely be listed with an indication of which are considered to be substantially identical.

   Where the applicant has submitted copies of prior art in accordance with these guidelines in a prior application or the Office has cited the prior art in applicant's prior application, reference to the submission in the prior application will be sufficient for the continuing application as far as the copies are concerned. As far as the statement per se is concerned, the relevance of the prior art to the claimed subject matter must be indicated if it differs from its relevance as explained in the prior application.
3) A translation of the pertinent portions of foreign language patents or publications considered material should be transmitted if an existing translation is readily available to the applicant. It will be sufficient, however, to transmit an equivalent English language patent or publication so long as it is identified as an equivalent.
4) If prior to the issuance of a patent an applicant, pursuant to his duty of disclosure under 37 CFR 1.56, wishes to bring to the attention of the Office additional patents, publications or other information not previously submitted, the additional information should be submitted to the Office with reasonable promptness. It may be included in a supplemental prior art statement or may be incorporated into other communications to be considered by the examiner. Any transmittal of additional information shall be accompanied by explanations of relevance and by copies in accordance with the requirements aforementioned. The transmittal should include a statement explaining why the prior art was not earlier submitted. All prior art statements submitted in accordance with these guidelines will be considered by the examiner.

   Where related or corresponding patent applications have been filed in other countries, prior art may be cited by the patent offices of those other countries in connection with the examination of the applications filed there. Where prior art is cited by those other patent offices while the U.S. application is pending, citations which are material to examination in this country and known to any of the individuals covered by § 1.56 must be called to the attention of this Office.

While the Patent and Trademark Office will not knowingly ignore any prior art which might anticipate or suggest the claimed invention, no assurance can be given that cited art or other information not submitted in accordance with these guidelines will be considered by the examiner.

After the claims have been indicated as allowable by the examiner, e.g., by the mailing of an Ex parte Quayle action, a notice of allowability (PTOL-327), an examiner's amendment

(PTOL–37), or a Notice of Allowance (PTOL–85), any citations submitted will be placed in the file. Since prosecution has ended, however, such submissions will not ordinarily be considered by the examiner unless the citation is accompanied by:

(*a*) A proposed amendment cancelling or further restricting at least one independent claim and narrowing the scope of protection sought;

(*b*) A timely affidavit under 37 CFR 1.131 with respect to the material cited; or

(*c*) A statement by the applicant or his attorney or agent that, in the judgment of the person making the statement, the prior art or other information cited

(1) raises a serious question as to the patentability of the claimed subject matter, or (2) is closer prior art than that of record, or (3) is material to the examination of the application as defined in 37 CFR 1.56(a) and is filed with an explanation as to why the prior art statement was not earlier presented e.g., prior art recently cited in a corresponding foreign patent application.

If the material is submitted for consideration after the base issue fee has been paid, it must, in addition to meeting the requirements of the previous paragraph, also be accompanied by a petition under 37 CFR 1.183 requesting a waiver of 37 CFR 1.312. Such petition, if granted, would result in review of the art by the examiner and possible entry of the material.

Where the prior art statement is *submitted in conformance* with 37 CFR 1.98 and this section in either the specification or in a separate paper, the examiner must list all the prior art citations on a form PTO–892 which is part of the next regular Office action following receipt of the prior art statement. In addition, the appropriate space in the left-hand column must be checked to indicate that a copy of the document is not being furnished. Since the properly cited documents are listed on form PTO–892, there is no need to mark "All checked" or "Checked" in the margin of the specification or in the separate paper containing the citations. In situations where an applicant submits a prior art statement which does *not fully* comply with the guidelines of this section, e.g., the prior art statement contains a listing of prior art documents but fails to include an explanation of the relevance of *all* of the listed prior art items or does not include copies of all listed prior art or some of the prior art items are deficient for other reasons, the examiner must consider and list on the form PTO–892 *each* prior art document which fully complies with the guidelines and treat noncomplying prior art in accordance with (1) and (2) of the following paragraph. If prior art citations submitted in conformance with 37 CFR 1.98 and this section are reviewed by a supervisor for any purpose and the handling thereof by the examiner is found deficient in the above respects, that supervisor will require correction before the allowance of the application. If the application is sampled in the Quality Review Program after allowance and it is found that the examiner has not listed all of the prior art which fully complies with the guidelines on the PTO–892, it will be returned to the examiner, via the group director, for immediate correction. See also §§ 707.05(b) and 717.06, item c2.

Where prior art statements are *not submitted in conformance* with the guidelines in this section; the examiner *must*, for all those documents which have been considered but not listed on the form PTO–892, (1) mark "Checked" and place his or her initials beside each citation or (2) where all the documents cited on a given page have been considered, mark "All checked" and place his or her initials in the left-hand margin beside the citations.

37 CFR 1.98(a) calls only for a concise explanation of the relevance of each listed item. This may be nothing more than identification of the particular figure or paragraph of the patent or publication which has some relation to the claimed invention. It might be a simple statement pointing to similarities between the item of prior art and the claimed invention. It is permissible but not necessary to discuss differences between the prior art and the claims. It is thought that the explanation of relevance will be useful to the examiner and should not be significantly burdensome for the applicant to prepare. A statement to the effect that an item is listed because it was cited during the prosecution of a counterpart foreign application and is not considered material to the examination of the U.S. application, is to be considered as satisfying the concise explanation requirement of 37 CFR 1.98(a).

Section 1.98 requires a copy of each patent or publication cited, including U.S. patents, or of at least the portions thereof considered to be pertinent (§ 1.98(a)) to accompany the prior art statement. Substantial time and effort often is needed to locate a document in the Office's files. Since the person submitting the prior art statement generally has available a copy of the item being cited, it is believed that expense and effort can be minimized by having that person supply the copy in all cases.

Prior Art Cited By Applicants or Form PTO–1449

Applicants are encouraged to use new form PTO–1449, "List of Prior Art Cited By Applicant," when preparing a prior are statement under 37 CFR 1.97–1.99. A copy of the form is reproduced in this section to indicate how the form should be completed. This form, which will enable applicants to provide the Office with a uniform listing of prior art citations, supersedes form PTO–3.72 in the Patent and Trademark forms booklet.

While the filing of prior art statements is voluntary, the procedure is governed by the

369-357 0 - 82 - 3

guidelines of this Section and 37 CFR 1.97 through 1.99. To be considered a proper prior art statement, form PTO–1449 must be accompanied by an explanation of relevance of each listed item, a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant) (37 CFR 1.98(a)), and should be submitted in a timely manner.

Examiners must consider all prior art citations submitted in conformance with 37 CFR 1.98 and this section and place their initials adjacent the citations in the boxes provided on the form. Examiners should also initial citations not in conformance with the guidelines which may have been considered. A prior art citation may be considered by the examiner for any reason whether or not the citation is in full conformance with the guidelines. A line should be drawn through a citation if it is not in conformance with the guidelines *and* has not been considered. A copy of the submitted form, as reviewed by the examiner, should be returned to the applicant with the next communication. The original copy of the form will be entered into the application file together with any PTO–892 form, on top of the center portion of the file. The copy returned to applicant will serve both as an acknowledgement of receipt of the prior art statement and as an indication of which references, if any, were considered by the examiner.

Each citation initialed by the examiner will be printed on the issued patent in the same manner as prior art cited by the examiner on form PTO–892.

Forms PTO–326 and PTOL–37 have been revised and now include a box to indicate the attachment of Form PTO–1449.

Sheet 1 of 4

FORM PTO-1449 (REV. 7-80) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

LIST OF PRIOR ART CITED BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.	SERIAL NO.
32210	967,858
APPLICANT: C. Benson, et al	
FILING DATE: 6/15/79	GROUP: 340

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
JQE	AA	3,703,447	11/72	Tew	418	61	
JQE	AB	3,703,447	7/74	Reitter	———	———	
JQE	AC	3,703,447	10/76	Sarich	418	61	
/	~~AD~~	~~3,798,712~~	~~8/76~~	~~Wolfe~~	~~418~~	~~63~~	
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
	~~AL~~	~~3,385,400~~	~~6/75~~	~~France~~				→
JQE	AM	11,372,729	6/65	Federal Republic of Germany	418	63	X	
JQE	AN	9,141	8/79	European Pat. Off.				
JQE	AO	WO 80/01871	9/80	PCT International				
JQE	AP	50-31061	11/79	Japan	260	424		X

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

JQE	AR	Kovach, et al, "Simple Precision RC Oscillator," IBM Tech. Disclosure Bulletin, Vol. 16, No. 10, 3/74-p.p.3174-3175
	AS	~~Tiers, J.Am. Chem. Soc. 825513 (1960)~~
	AT	

EXAMINER: J. Q. Edwards DATE CONSIDERED:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

USCOMM-DC 60-3985