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601 Content of Application [R-45]

Rule 51. General requisites of an application. Applications for patents must be made to the Commissioner of Patents and Trademarks. A complete application comprises:

- (a) A specification, including a claim or claims, see rules 71 to 77.
- (b) An oath or declaration, see rules 65 and 68.
- (c) Drawings, when necessary, see rules 81 to 88.
- (d) The prescribed filing fee. (See 35 U.S.C. 41 for filing fees.)

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) Abstract of the Disclosure.
- (c) Cross-References to Related Applications (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).
- (a) *Title of the Invention:* (See rule 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.

(b) *Abstract of the Disclosure:* (See rule 72(b), and § 608.01(b).)

(c) *Cross-References to Related Applications:* (See rule 78 and § 201.11).

(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.

(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.

(e) *Summary:* A brief summary or general statement of the invention as set forth in rule 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.

(f) *Brief Description of the Drawing:* A reference to and brief description of the drawing(s) as set forth in rule 74.

(g) *Description of the Preferred Embodiment(s):* A description of the preferred embodiment(s) of the invention as required in rule 71. The description should be as short and specific as is necessary to adequately and accurately describe 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 sub-

ject 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 rule 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 rule 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 rule 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.

Oath or Declaration

(See rules 65 and 68.) 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 and oath or declaration must be in the English language and must be legibly typewritten, written or printed in permanent

ink or its equivalent in quality. See rule 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 (rules 91-93, § 608.03).

Rule 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 [R-35]

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 [R-45]

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). A separate notification must be filed in each application for which he is intended to receive communications from the Office. The notification should also include his telephone number. 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 above-delineated responsibility is *additional* to the separate obligation (see rule 347) of a registered attorney or agent to notify the Attorney's Roster of any change of his address for entry on the register, by letter separate from any notice of change of address filed in individual applications. That separate obligation is not discharged by filing of the individual notifications in each application as required by this section.

602 Original Oath or Declaration [R-44]

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.

Rule 65. Statement of Applicant. (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 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 rule 66, or (b) include the personal declaration of the applicant as prescribed in rule 68. See rule 153 for design cases and rule 162 for plant cases.

(b) If the application is made as provided in rules 42, 43, or 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.

Rule 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 rules 271 to 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 representations, 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 rule 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 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) includes 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 does verily believe himself 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 rule 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. Rule 67, § 603.

602.01 Oath Cannot Be Amended [R-25]

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 jurisdiction at the time he administered the oath a certificate of the notary that the oath was taken within his jurisdiction will correct the deficiency. See §§ 602 and 604.02.

602.02 New Oath or Substitute for Original [R-25]

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 PO-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 [R-40]

In the first Office action the examiner must point out, making use of attachment Form PO-152 (see § 707.07(a)), every deficiency in a declaration or oath and requires 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 initials and the date.

602.04 Foreign Executed Oath [R-25]

An oath executed in a foreign country must be properly authenticated. See § 604 and rule 66.

602.04(a) Foreign Executed Oath Is Ribbioned to Other Application Papers [R-21]

Extract from Rule 66. (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 ribbioned 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.

Note that a declaration in lieu of application oath (rule 68) need not be ribbioned to the other papers. It must, however, be maintained together therewith.

602.05 Oath or Declaration—Date of Execution [R-40]

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 rule 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 PO-152 is used to notify applicant that his oath or declaration is stale.

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 [R-40]

Where the date of filing the application is not the date that determines the statutory twelve months' 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 rule 60, § 201.06(a).)

603 Supplemental Oath or Declaration [R-44]

Rule 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.

Rule 67 requires in the supplemental oath or declaration substantially all the data called for in rule 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 [R-40]

Since the decision in *Cutter Co. v. Metropolitan Electric Mfg. Co.*, 275 Fed. 158, 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 rule 312, since they make no change in the wording of the papers on file. See § 714.16.

604 Administration or Execution of Oath [R-21]

Extract From Rule 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 [R-21]

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 [R-31]

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 was within his jurisdiction when he administered that oath.

Where the seal and venue differ the appropriate statement on the "Notice of Informal Patent Application" form PG-152 should be checked.

604.03 Notaries and Extent of Jurisdiction

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, notary must attach to his certificate a statement that he is qualified in the county in which he acts. Notaries at large are commissioned by the Secretary of the State. Notary's signature must indicate that he 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 commission expires but if he 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-31]

When the oath is made in a foreign country, 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 rule 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 before whom the oath is taken.

604.04(a) Consul-Omission of Certificate [R-31]

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 authenticated, the application is nevertheless given a filing date for purposes of examination. The examiner, in his first Office action, should note this informality and require either authentication of the oath by an appropriate diplomatic or consular officer or a declaration (rule 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; rule 66(a). This informality can be overcome either by forwarding the original oath to the appropriate officer for authentication or by filing a declaration (rule 68), if applicant wishes to preserve his 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 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.

604.05 Consular Fee Stamp

All papers executed on or after June 28, 1955, that formerly required the consular fee stamp, are acceptable without such stamp.

604.06 By Attorney in Case

The language of rule 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 know-

ingly jeopardize his 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 rule 66 and § 604. [R-24]

605 Applicant [R-29]

Rule 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 rules 42, 43, and 47. (See rule 60)

(b) Unless the contrary is indicated, the word "applicant" when used in these rules refers to the inventor, joint inventors who have applied for a patent, or to the person mentioned in rules 42, 43, or 47 who has applied for a patent in place of the inventor.

Extract from Rule 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 rule 47.

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

Rule 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 rules 42, 43, or 47. However, the patent may be issued to the assignee or jointly to the inventor and the assignee as provided in rule 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-35]

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 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 PO-152 should be used. Note rule 33(a).

605.03 Applicant's Post Office Address [R-35]

Applicant's post office address means that address at which he customarily receives his mail. The post office address should include the ZIP Code designation.

The object of requiring 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.

If the post office address is entirely omitted it must be supplied by a letter over the applicant's own signature. Where, however, 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.

Any amendment of the post office address requires the signature of the applicant himself.

The "Notice of Informal Patent Application" attachment form PO-152 is used to notify appli-

cant that the post office address is incomplete or omitted. Note rule 33(a).

605.04 Applicant's Signature and Name [R-29]

Rule 57. Signature. The application must be signed by the applicant in person. The signature of 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. Full names must be given, including at least one given name without abbreviation together with any other given name or initial.

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).

605.04(a) Single Signature Form [R-24]

The single signature form should be executed only when attached to a complete application as the last page thereof. Such forms are shown as 16 and 16a in the List of Forms in the Rules of Practice booklet.

605.04(b) One Full Given Name Required [R-35]

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 rule 57 of the Rules of Practice.

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 he will not pass the application to issue until the omission has been supplied unless a statement be filed over the applicant's own signature setting forth that his name as signed contains at least one given name without abbreviation or what is in fact his full first 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.

Rule 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.

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 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. It is necessary however, that such surplus portion of the name, if it appears printed on the drawing, should be removed therefrom. This can be done by the Office draftsman.

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 [R-35]

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. When ready for allowance, the case should be sent to the Drafting Division for the addition of the new name to the drawing if there is already a name on the drawing.

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 [R-24]

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

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 [R-35]

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(e).

605.04(h) Signature to Drawing [R-29]

Signatures and names are not permitted within the sight space of a drawing prepared under rule 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 information may be placed at the top center of the drawing. See § 608.02.

605.05 Administrator, Executor, or Other Legal Representative [R-24]

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 drawing is signed by the legal representative it must follow this form:

John A. Jones, deceased,
by Mary A. Jones, Administratrix.

The other signatures must either be in the above form or:

Mary A. Jones

Administratrix of Estate of

John A. Jones, deceased.

If the drawing is signed by the attorney, this form must be used:

John A. Jones, deceased,

by Mary A. Jones, Administratrix,

by William A. Smith, Atty.

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 [R-24]

See § 409.03.

606 Title of Invention

Rule 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 [R-29]

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 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 Office does not include these words at the beginning of the title of the invention.

607 Filing Fee [R-35]

Applications filed before October 25, 1965, required only a basic filing fee. That part of the Fee Act, effective October 25, 1965, pertaining to claims presented after an application is filed, does not apply to these applications. See § 714.10.

Applications filed on or after October 25, 1965, are subject to the following fees and practice:

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).

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. (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.

Rule 22. Fees payable in advance. Fees and charges payable to the Patent Office are required to be paid in advance, that is, at the time of making application for any action by the Office for which a fee or charge is payable.

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, and the replacement of a claim by a claim of the same type do not require any additional fees.

For purposes of determining the fee due the Patent Office, a claim will be treated as dependent if it contains reference to one other claim 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, non-elected claims will be included in determining the fees due in connection with a subsequent amendment unless such claims are canceled.

An amendment accompanying the papers constituting the separate application under rule 60 canceling claims from the certified copy 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.

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

Forms 51 and 52, located in the back of the Rule Book, 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 Office.

607.01 Fee Exempt [R-22]

There were two types of Fee Exempt applications: (a) those filed under 35 U.S.C. 266, repealed as of October 25, 1965 and (b) those filed under a ruling of the Comptroller General's Opinion B-111,648 also abrogated as of the same date:

Beginning October 25, 1965, there are no longer any applications which are exempt from the filing fee or the issue fee. Applications filed

before this date without the filing fee under the provisions previously in effect are subject to payment of the issue fee.

607.02 Returnability of Fees

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

608 Disclosure [R-35]

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 rule 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. Rule 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.

608.01 Specification [R-29]

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

Rule 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 rule 78 and § 202.01.

Rule 52. Language, paper, writing, margins. (a) The specification and oath or declaration must be in the English language. All papers which are to become a part of the permanent records of the Patent Office must be legibly written 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 or printing thereon to permit the 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, oath, or declaration, papers as provided for in rules 42, 43, 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 1½ inches (3.8 cm.) must be reserved on the left-hand side and on the top of each page of the specification, including claims. The lines must not be crowded too closely together; typewritten lines should be double spaced. The pages of the specification, including claims, should be numbered consecutively, starting with 1, the numbers being placed in the center of the bottom margins.

(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 rule 56.)

Rule 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.

(b) All tables and chemical and mathematical formulas in the specification, including claims, and amendments thereto, must be on pure white durable paper, the surface of which is calendered and smooth, 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 ribbon must 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, in which case the formula or table will appear printed across both columns of the page in the printed patent. 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 0.085 inch (2.2 mm.) high (elite type). Hand lettering must be neat, clean, and have a minimum character height of 0.085 inch (2.2 mm.). A space at least ¼ inch (6.4 mm.) high should be provided between the 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 bottom of each page. It is a common practice and a commendable one, to consecutively number all the lines of each page (and the lines of each claim). A top margin of at least 1½ inches 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, xeroprinted, 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 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. Rule 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 to order a copy of the specification and claims to be made by the Patent Office at his 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.

As stated in rule 52 the specification as well as oath or declaration must be in the English language.

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 circumstance, he 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.

Rule 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 "Système International d'Unités", 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. [R-41]

608.01(a) Arrangement of Application [R-29]

Rule 77. Arrangement of application. The following order of arrangement should be observed in framing the application:

- (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) Abstract of the disclosure.
- (c) Cross-references to related applications, if any.
- (d) Brief summary of the invention.
- (e) Brief description of the several views of the drawing, if there are drawings.
- (f) Detailed description.
- (g) Claims or claims.
- (h) Signature. (See rule 57.)

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) Abstract of the Disclosure.
- (c) Cross-References to Related Applications (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).

608.01(b) Abstract of the Disclosure [R-41]

Rule 72(b). A brief abstract of the technical disclosure in the specification must be set forth immedi-

ately following the title and preceding the disclosure in a separate paragraph under the heading "Abstract of the Disclosure". The purpose of the abstract is to enable the Patent Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure, and 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 re-

quire the submission of a brief abstract of the technical disclosure in the specification, the abstract to appear immediately after the title of the invention and preceding the disclosure in a separate paragraph under the heading "Abstract of the Disclosure." Responses to such actions should be treated under rule 111(b) practice like any other formal matter.

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

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.

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, rule 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, rule 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 sulfonfyl 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. 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

A heart valve with an annular valve body defining an orifice and having 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.

A method for sealing, by application of heat, 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.

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 [R-41]

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 [R-21]

Rule 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 rule 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

Rule 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

Rule 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 [R-22]

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 rule 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 rule 75, §§ 608.01(i), 608.01(o), and 1302.01.

NOTE.—Completeness, § 608.01(p).

608.01(h) Mode of Operation of Invention [R-44]

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 rule 71(b).

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

NOTE.—Completeness, § 608.01(p).

608.01(i) Claims [R-35]

Rule 75. Claim(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) 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.

(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 rule 58(a).)

(2) See rules 141 to 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.

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

Rule 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 rule 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 [R-22]

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 [R-22]

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 sen-

tence 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 rule 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-22]

Rule 75(c), reads as follows:

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.

For applications filed on or after October 25, 1965, 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.

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 rule 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 dependent claim 2 could read as follows:

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

A dependent claim cannot directly refer back to two or more preceding claims. For example, a claim reading as follows:

7. A machine as specified in claims 5 or 6 (or, 5 and 6) in which . . . is not permitted. Such a claim disguises the true number of claims, since it is in reality two claims. It is also alternative.

However, a series of 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).

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.

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 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.

608.01(o) Basis for Claim Terminology in Description [R-22]

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 rule 75, §§ 608.01(i) and 1302.01.

608.01(p) Completeness [R-22]

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.

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.

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 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.¹

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

¹ *In re Krimmel*, 48 CCPA 1116, 202 F.2d 948, 130 USPQ 215; *In re Hartop et al.*, 50 CCPA 780, 311 F.2d 249, 135 USPQ 419.

incorporated in the application as filed, or may be subsequently submitted by affidavit if and when required. The Patent 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,² not merely for further investigation or research but commercial availability is not necessary. Mere assertions such as "therapeutic agents,"³ "for pharmaceutical purposes,"⁴ "biological activity,"⁵ "intermediates,"⁶ 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.⁷ On the other hand, incredible statements⁸ or statements deemed unlikely to be correct by one skilled in the art⁹ 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.¹⁰ 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,¹¹ although animal tests may be adequate where the art would accept these as appropriately correlated with human utility.¹²

If there is no assertion of human utility,¹³ or if there is an assertion of animal utility,¹⁴ 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.¹⁵

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 to be effective will not satisfy the utility requirement.¹⁶ 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.¹⁷ 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.¹⁸ 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.¹⁷

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

² *Brenner v. Manson*, 383 U.S. 519, 148 USPQ 689.
³ Cf. *In re Lorans et al.*, 49 CCPA 1227, 805 F.2d 875, 134 USPQ 812; cf. *Ex parte Brockmann et al.*, 127 USPQ 57.
⁴ *In re Diedrich*, 50 CCPA 1355, 318 F.2d 946, 138 USPQ 128.
⁵ *In re Kirk et al.*, 54 CCPA 1119, 153 USPQ 48; *Ex parte Lanham*, 135 USPQ 106.
⁶ *In re Joly et al.*, 54 CCPA 1159, 153 USPQ 45; *In re Kirk et al.*, 54 CCPA 1119; 153 USPQ 48.
⁷ *In re Garave*, 54 CCPA 1524, 154 USPQ 92.
⁸ *In re Citron*, 51 CCPA 852, 325 F.2d 248, 130 USPQ 516; *In re Oberweiser*, 28 CCPA 749, 115 F.2d 826, 47 USPQ 455; *Ex parte Moore et al.*, 128 USPQ 8.
⁹ *In re Ruskin*, 53 CCPA 872, 354 F.2d 395, 148 USPQ 221; *In re Pottler*, 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 851.
¹⁰ *In re Irons*, 52 CCPA 938, 340 F.2d 974, 144 USPQ 851; *Ex parte Paschall*, 88 USPQ 181; *Ex parte Pennell et al.*, 99 USPQ 56; *Ex parte Ferguson*, 117 USPQ 220; *Ex parte Timmla*, 123 USPQ 581.
¹¹ *Ex parte Timmla*, 123 USPQ 581.
¹² *In re Hartop et al.*, 50 CCPA 780, 311 F.2d 249, 135 USPQ 419; *Ex parte Murphy*, 134 USPQ 134.

¹³ Cf. *Blicke v. Treves*, 44 CCPA 753, 241 F.2d 718, 112 USPQ 472; *In re Krimmel*, 48 CCPA 1110, 202 F.2d 948, 130 USPQ 215; *In re Dodson*, 48 CCPA 1125, 202 F.2d 948, 130 USPQ 224; *In re Hitchings*, 52 CCPA 1141, 342 F.2d 80, 144 USPQ 637.
¹⁴ *In re Bergel et al.*, 48 CCPA 1102, 202 F.2d 955, 130 USPQ 208; *Ex parte Melvin*, 155 USPQ 47.
¹⁵ *Ex parte Harrison et al.*, 120 USPQ 172; *Ex parte Lewin*, 140 USPQ 70.
¹⁶ *In re Hartop et al.*, 50 CCPA 780, 311 F.2d 249, 135 USPQ 419.
¹⁷ Cf. *In re Johnson*, 48 CCPA 733, 282 F.2d 870, 127 USPQ 216; *In re Hitchings et al.*, 52 CCPA 1141, 342 F.2d 80, 144 USPQ 637.
¹⁸ *In re Mourca et al.*, 52 CCPA 1303, 345 F.2d 595, 145 USPQ 452; *In re Schmidt et al.*, 54 CCPA 1577, 153 USPQ 640.

utility.¹⁹ 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.²⁰

INCORPORATION BY REFERENCE

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 issued by foreign countries, to (2) nonpatent publications, to (3) a patent or application which itself incorporates "essential material" by reference or to (4) a foreign application. See *In re Fouché*, 169 USPQ 429.

Nonessential subject matter may be incorporated by reference to (1) patents issued by the United States or foreign countries, (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.

¹⁹ *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 Surran*, 54 CCPA 855, 370 F.2d 349, 151 USPQ 724; *In re Lund et al.*, 54 CCPA 1361, 153 USPQ 625.
²⁰ *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.

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. Where appropriate it would be advisable to direct particular attention 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 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 soft copy of a 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, 179 USPQ 157; In re Hawkins, 179 USPQ 163; In re Hawkins, 179 USPQ 167, (CCPA, 1973).

Reliance upon a commonly assigned pending 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 and General Electric Company v. Brenner, 159 USPQ 335; 407 F. 2d 1258.

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.

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 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 rule 14 of the Rules of Practice in Patent Cases 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.

NOTE.—For problems arising from the designation of materials by trademarks and trade names, see § 608.01 (v). [R-39]

608.01 (q) Substitute or Rewritten Specification [R-26]

Rule 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, but new specifications cumber the record and require additional reading, and hence should not be required or accepted except in extreme cases.

A substitute specification that has not been required, and is not needed, is not 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 in 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.

608.01 (s) Restoration of Canceled Matter [R-26]

Canceled text in the specification or a canceled claim can be restored only by presenting

the cancelled matter as a new insertion. See rule 124, § 714.24.

608.01(t) Use in Subsequent Application [R-29]

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, rule 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 [R-26]

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 Used in Trade [R-26]

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 de-

scriptive 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.

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.

Examiners 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 [R-40]

35 U.S.C. 113. Drawings. When the nature of the case admits, the applicant shall furnish a drawing.

Rule 81. Drawings required. The applicant for patent is required by statute to furnish a drawing of his invention whenever the nature of the case admits of it; this drawing must be filed with the application. Illustrations facilitating an understanding of the invention (for example, flow sheets in cases of processes, and diagrammatic views) may also be furnished in the same manner as drawings and may be required by the Office when considered necessary or desirable.

Rule 84. Standards for drawings.

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

(b) **Size of sheet and margins.** The size of a sheet on which a drawing is made must be exactly $8\frac{1}{2}$ by 14 inches (21.6 by 35.6 cm.). One of the shorter sides of the sheet is regarded as its top. The drawing must include a top margin of 2 inches (5.1 cm.) and bottom and side margins of one-quarter inch (6.4 mm.) from the edges, thereby leaving a "sight" precisely 8 by $11\frac{1}{4}$ 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 $\frac{1}{4}$ -inch (6.4 mm.) diameter holes having their centerlines spaced eleven-sixteenths inch (17.5 mm.) below the top edge and $2\frac{3}{4}$ inches (7.0 cm.) apart, said holes being equally spaced from the respective side edges.

(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 absolutely black and permanent; 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, and 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, which may be not less than about one-twentieth inch (1.3 mm.) apart.

(2) Heavy lines on the shade side of objects should 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 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 must not be so placed in the close and 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 so 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.

(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 plan, 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 (the different parts should be identified by the same figure number but followed by the letters, a, b, c, etc., for each part). 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 must stand in the same direction and should, 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 two-inch (5.1 cm.) 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.* An inventor's, agent's, or attorney's name, signature, stamp, or address, or other extraneous matter, will not be permitted upon the face of a drawing, within or without the margin, except that identifying indicia (attorney's docket number, inventor's name, number of sheets, etc.) should be placed within three-fourths inch (19.1 mm.) of the top edge and between the hole locations defined in paragraph (b) of this rule. Authorized security markings may be placed on the drawings provided they be outside the illustrations and are removed when the material is declassified.

(m) *Transmission of drawings.* Drawings transmitted to the Office should be sent flat, protected by a sheet of heavy blinder'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 rule 152 for design drawings, 165 for plant drawings, and 174 for reissue drawings.)

Rule 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 rule 21.)

Design patent drawings, rule 152, § 1503.02.
Plant patent drawings, rule 165, § 1606.

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

Each sheet of drawing must bear the "Approved" stamp of the Draftsman before the application is allowed.

The Record Services Branch of the Office Services Division has charge of the drawings in patented cases. Canceled sheets, however, are not retained with the patented drawings but are filed with the abandoned files and drawings in the Abandoned Files Unit.

See: Correction of drawings, § 608.02(p). Prints, preparation and distribution, §§ 508 and 608.02(m). Prints, Return of drawing, § 608.02(y). Signature to the drawing is treated in § 605.04(h). 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 case under the provisions of rule 60 (unexecuted case), does not obviate the need for formal bristolboard drawings. See § 608.02(b).

DRAWING SYMBOLS

Rule 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 "Rules of Practice" and Title 37, Code of Federal Regulations pamphlets include 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 drawing 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 group director 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 conven-

tional 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 the second sentence of rule 81. In requiring such a drawing, the examiner should clearly indicate that the requirement is made under the second sentence of rule 81, and be careful not to state that he is doing so "because the nature of the case admits" of a drawing, as that might give rise to an erroneous impression as to the completeness of the application when 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 rule 118. 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 considered to be drawings. Photographs are not acceptable for a filing date nor for any purpose except as exhibits unless they come within the special categories set forth in the paragraph immediately below. Photolithographs of photographs and photographs mounted on proper size bristol-board 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 Office is willing to accept black and white photographs or photomicrographs (not photolithographs or other reproductions of photographs) 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 ornamen-

tal 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 drawings.

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

NOTIFYING APPLICANT

If the drawings are informal, but may be admitted for examination purposes the draftsman indicates on 2-part form, PO-948, what the informalities are and whether they can be corrected or whether new drawings are required. In either case the drawings are accepted as satisfying the requirements of rule 51.

The examiners are directed to advise the applicants (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, but will not, in any case, require new drawings because of their execution unless the necessity therefor shall have been indicated by the draftsman.

As soon as allowable subject matter is found, or an appeal is filed, the requirement for new drawings should be insisted upon. Before writing the action, the draftsman should be consulted to ascertain if, at that time, the new drawing could be prepared by the Patent 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 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.

ADDITIONAL ILLUSTRATION

The examiner may require additional drawings for the purpose of illustrating the disclosure.

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.

For the handling of additional, duplicate, or substitute drawing, see § 608.02(h). [R-36]

608.02(a) New Drawing—When Required [R-41]**PHOTOPRINTS AS DRAWINGS**

To expedite filing, applicants sometimes submit applications with photoprints in lieu of formal drawings. Such applications are accepted by Application Division for filing only, provided the photoprints are readable and reproducible. Applicant is notified on form letter POL-1094 that formal drawings, in compliance with rule 84, together with a minimum comparison fee of ten dollars, are required within two months, to avoid abandonment. This charge may be applied against deposit accounts and authorization to charge such accounts should be included when the formal drawings are filed. For those who have no deposit account, acceptance of the formal drawings will be contingent upon payment of the comparison charge within the set period. A copy of form POL-1094 is placed in the file wrapper by the Application Division. When the file wrapper is received in the properly assigned examining group, the POL-1094 is promptly mailed. The application will not be examined until the formal drawings are received.

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, PO-1094 from the group art unit before submitting the formal drawings and the comparison charge. The letter of transmittal accompanying the formal drawings should identify the group art unit indicated on form PO-1094. 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 form PO-1094.

In the event the drawings are not timely furnished, the application becomes abandoned after

expiration of the two-month period referred to in form letter POL-1094. The group clerk prepares a letter of abandonment but the examiner is not credited with a disposal.

New applications with photoprints in lieu of drawings are identified by a pink "Special R. 84" tag on the file wrapper.

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, upon receipt of an application, are sent from the Application Division to be inspected by the draftsman. If satisfactory, he stamps on each sheet "Approved by Draftsman." See also § 608.02.

HANDLING OF NEW DRAWINGS

If the new drawings are timely filed, the clerk should immediately send the new drawings with the file wrapper to the Draftsman for approval as to form. If the drawings are approved as to form by the Draftsman, the clerk checks to see if the \$10 comparison fee has been paid or charged to a deposit account. If the fee has been paid, this fact should be noted on form PO-948 or PO-1094 in the left margin thereof opposite the comparison fee requirement and initialed by the clerk. A simple phrase such as "fee O.K." is sufficient. If the fee has not been paid, the applicant or his attorney should be so notified. This should be done by the clerk by either telephone or a short letter. The following language may be used:

"Formal drawings have been received in this application. However, the response is incomplete because a comparison fee of \$10 has not been paid. Applicant is given 30 days to complete his response in order to avoid any question of abandonment."

If the minimum \$10 comparison fee has been paid, the examiner compares the content of the new drawing to the informal drawing to determine if the illustration is sufficient and whether new matter has been added. The examiner should state in his next Office action his conclusions. These conclusions could merely state that upon comparison, the new drawings were acceptable or why they were not acceptable.

If the application is allowed on the first action, the examiner should state that the new drawings were acceptable in the examiner's amendment or on form POL-327.

608.02(b) Informal Drawings [R-41]

Rule 85. Informal drawings. The requirements of rule 84 relating to drawings will be strictly enforced. A drawing not executed in conformity thereto, if suit-

able 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 rules 21 and 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 PO-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 rule 111 (b).

608.02(c) Drawings or Print Kept in Examining Group [R-36]

The photocopies of the drawings must always be kept on top of the papers on the right of the file wrapper so as to be visible upon opening the wrapper and easily detached. This photocopy (or "print") is placed in the drawing cabinet when the corresponding large size (10 by 15 inches) drawing is removed during prosecution.

No application should be sent to issue or to the Abandoned Files Unit unless the original drawing, if any, accompanies it.

Rule 84 was amended on May 28, 1971 (887 O.G. 1840) to require the drawings in patent applications to be 8½ by 14 inches in size and to prohibit names within the illustration area of the drawing.

Although the rule was changed in May 1971, filing of the smaller size drawings did not become mandatory until January 1, 1972.

The small size formal bristolboard drawings are placed in the center portion of the application file wrapper underneath the application papers by the Customer Services Division. The bristolboard drawing should be retained in this position for filing in the examining groups in all applications filed after January 1, 1972.

608.02(d) Complete Illustration in Drawings

Rule 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.

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.)

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. 1837. 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-36]

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 not been received.

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 forward all such cases to the Customer Services Division for preparation of the paper prints. The Customer

Services Division will return the cases to the examining groups.

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. 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 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-44]

Rule 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 rule 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 under rule 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 rule 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 (rule 138) must be filed together with a showing why the proposed action was not taken earlier. See rule 313.

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

When an application is sent to issue, any canceled sheet of drawing then in the case is sent to the Abandoned Files Unit. Such canceled sheet is available for applicant's use in another application directed to its subject matter. It follows that, except as provided in rule 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 [R-44]

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 [R-32]

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-44]

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

Prints are made of the drawings of an acceptable application. Prints of the drawings as filed 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 bristolboard 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 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).

HEAVY PAPER PRINTS

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

→ 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 colored print.

→ The colored 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 colored prints should be removed and placed in the drawing cabinets.

→ If an application has several sheets of drawings, the colored 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 colored prints are removed from the drawing cabinets is determined by the group director.

→ The formal bristolboard 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-29]

In patentability report cases having drawings, the examiner to whom the case is assigned obtains a duplicate set of 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-44]

The Incoming Mail Section (mail room) stamp and the "Corrected" stamp applied by the Drafting Division are impressed on the back of the drawings.

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 [R-29]

Rule 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-44]

Correction and alterations in the disclosure of the drawings of a pending application may be made only under the supervision of, or by the Chief 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.

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-44]

Any request by the applicant for amendment of the drawing to cure defects must be embodied in a *separate* letter to the Chief Draftsman. Otherwise the case, unless in other respects ready for issue, will not be forwarded by the examiner to the Drafting Division, and applicant will 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-44]

The Draftsman places an estimate of the cost of correcting any formal defects of the drawing on form PO-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 he will note his approval on the order for the estimate, attach the order to the outside of the file and have the docket clerk of the group forward 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, 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 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 ascertain (by calling Ext. 73227) whether or not the attorney in the case has a deposit account. 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 PO-948. Including the estimate in the final requirement for correction of the drawing may avoid prolonging the prosecution. [R-36]

608.02(t) Cancellation of Figures [R-23]

Cancellation 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 cancellation or the date that substitute sheets are filed should be written in red ink within the red line. Cancellation 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.

When the cancellation of some of the figures from one sheet of drawings has left the remaining figures with an inartistic arrangement, the Chief 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. Cancellation of a figure may necessitate renumbering of the remaining figures.

608.02(u) Changing Name of Attorney on Drawing Forbidden [R-23]

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 is transferred from one case to another having a different attorney.

608.02(v) Drawing Changes Which Require Sketches [R-23]

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 a Sketch [R-36]

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. Making simple changes in inventor's name (not his signature).
8. Changing lead lines.
9. Correcting misspelled legends.

In the event that several different kinds of changes are required or any of the listed changes are time consuming, an examiner's amendment should not be made.

608.02(x) Disposition of Orders for Amendment of Drawing [R-36]

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 initials, attaching, if appropriate, a "Special" tag (PO-364). 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 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 for his file.

In the event that the application is in condition for allowance, the application can be sent to issue immediately after the drawing is prepared.

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 Office action.

608.02(y) Return of Drawing [R-29]

If there is an accepted drawing in the case, other drawings (except those originally filed) that have been finally denied admission will be returned to the applicant only at his request.

Such a request 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).

608.03 Models, Exhibits, Specimens [R-37]

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.

Rule 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.

Rule 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.

Rule 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-23]

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 case. If 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 exhibit is to be held or returned to sender.

Rule 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, Rule 166.

Rule 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 [R-23]

Rule 118. Amendment of disclosure. In original applications, all amendments of the drawings or specif-

rations, 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(1).

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 [R-23]

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 [R-23]

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. Rules 181 and 191 afford the explanation of this seemingly inconsistent practice as affecting new matter in the specification.