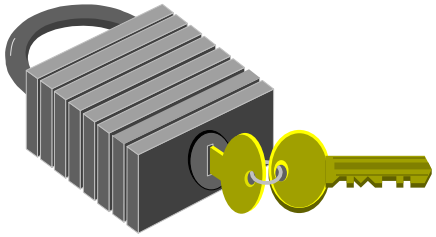
UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application Process

Paul Salmon

Basis for Protection

- Constitutional basis in Article I, Section 8:
  - *"Congress shall have the power ... to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."*
- First patent law was enacted in 1790
- The present law is codified in Title 35 of the United States Code



What is a U.S. Patent?

- A form of personal property granted to the inventor and issued by the United States Patent & Trademark Office.
- Provides protection only within the United States.
- The patentee must enforce the patent once it is issued.

Types of US Patents

- Utility Patent
  - Protects articles of manufacture, compositions of matter, machines or processes directed to the same
  - Term – 20 years from the application filing date
- Plant Patent
  - Protects most asexually reproduced plants
  - Term – 20 years from the application filing date
- Design Patent
  - Protects the ornamental appearance of an article
  - Term – 14 years from the date of grant

Types of U.S. Patent Applications

- Provisional Utility Application
  - Available for Utility Patents Only
- Non- Provisional Application
  - Most commonly filed application
- Patent Cooperation Treaty (PCT) Application
  - International filing mechanism for utility patents
- Hague Agreement on Industrial Designs Application
  - International mechanism for protecting industrial designs (the U.S. is in the process of ratifying and implementing this treaty)

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U.S. Patent Operations

Patent Examination Organization

- Each Technology Center is Divided into Art Units (AU)
- An AU Examines Specific Subject Matter Within a Subject Area
- Each AU has one Supervisory Patent Examiner (SPE)
- Each AU Contains 13-18 Examiners

Patent Examining Corps Organization and Size

- 7 Technology Centers (TCs)
  - Biotechnology, Organic Chemistry (TC 1600)
  - Chemical and Materials Engineering (TC 1700)
  - Computer Architecture, Software, & Electronic Commerce (TC2100)
  - Communications (TC 2600)
  - Semiconductors, Electrical & Optical Systems & Components (TC 2800)
  - Transportation, Construction, Agriculture and National Security (TC 3600)
  - Mechanical Engineering, Manufacturing and Products, & Designs (TC 3700 and TC2900)
- ~200 Art Units (~13-18 examiners per Art Unit)
  - about 30 Art Units per Technology Center
- >3500 Patent Examiners
  - about 400 Examiners per Technology Center

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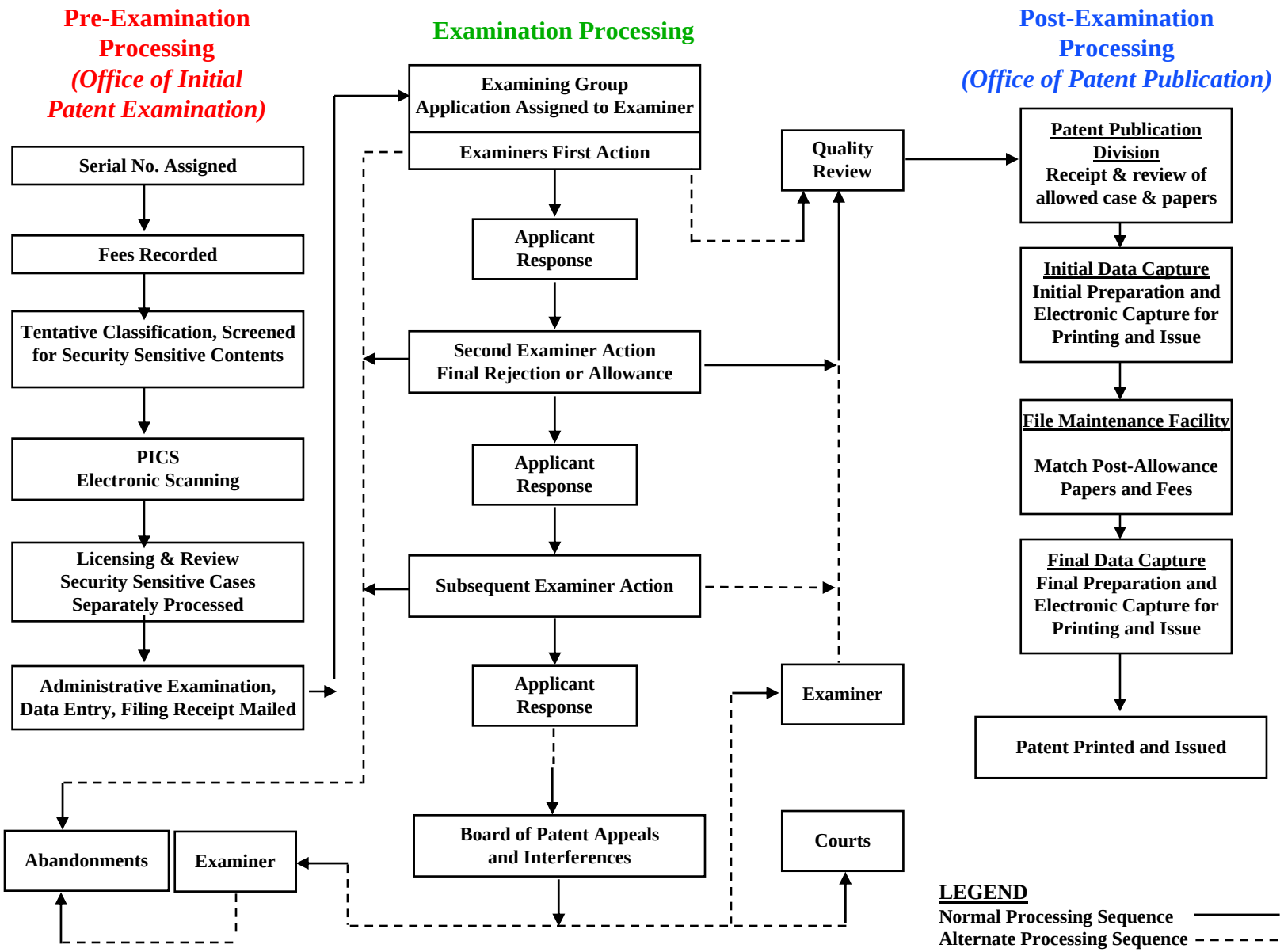
Patent Examination

Patent Application & Examination Process

- When application papers first arrive, they undergo processing at the Office of Initial Patent Examination (OIPE).
  - Review Papers for Formalities to Assure the Filing of a Complete Application
    - Oath/Declaration
    - Sequence Compliance
    - Presence of an Abstract
    - Payment of Filing Fee
  - Assigns the Filing Date for an Application
    - Filing date requires:
      - Submission of a Specification
      - At least one claim
      - Drawings (if necessary) to describe the invention

THE PATENT PROCESS



Examination in Technology Centers

- Generally, the examination process is a study by the patent examiner to assure that the contents of the application comply with all the U.S. legal requirements.

- We will discuss <u>some</u> of the requirements for patentability today.

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Statutory Considerations

Major Statutory Areas of Patentability Consideration

- 35 U.S.C. §101
  - Utility
- 35 U.S.C. §102
  - Anticipation
- 35 U.S.C. §103
  - Obviousness
- 35 U.S.C. §112, first paragraph
  - Enablement and Written Description
- 35 U.S.C. §112, second paragraph
  - Definiteness

35 USC §101

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

35 U.S.C. §102 (Anticipation)

- Under U.S. Patent Laws, a prior disclosure of the claimed invention is said to anticipate the invention and may preclude patentability.

Obviousness

- Under the U.S. Patent Laws a reference or combination of references that disclose a variation of what is claimed such that the variation would have been obvious to one of ordinary skill in the art at the time the invention was made, may render the claimed invention obvious and unpatentable.

Prior Art Effect

- Differs in different jurisdictions
  - U.S. – 1 – year grace period
  - EU – No grace period
  - JPO – 6 – month grace period
  - Singapore – 6 -month grace period for learned treatise
- In some jurisdictions, grace period may only apply to novelty rejections

35 USC §112 - Enablement

The specification shall … enable any person skilled in the art to which it [the invention] pertains, or with which it is most nearly connected, to <u>make and use</u> the same, . . .

35 USC §112, First Paragraph Written Description

The specification shall contain a written description of the invention, and the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable …

General Principles

- Basic inquiry: Can one skilled in the art reasonably conclude that the inventor had possession (constructive or actual) of the claimed invention at the time the application was filed?

- Written description requirement is a separate and distinct from the enablement requirement

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Patent Claims

Patent Claims

- The claims of a patent define the scope of the invention covered by the patent
- At the end of every patent, the inventor must delineate the invention he/she claims
- Claim language can be complicated and requires knowledge of certain terms of art

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Where to go for help?

USPTO Website

United States Patent and Trademark Office

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Patents

Check NEWS & NOTICES for more about the following:

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Basic facts about patents
How to get a patent
Types of patents
Registered patent attorneys & agents

You can APPLY for a patent online *(EFS)*

Corresponding re: patenting *(rules for)*
see
- Responding to office actions (§700)
- Customer-requested actions (all)
- Assignment of ownership (§300)

>> *more* about assignments

Manual of Patent Examining Procedure - *MPEP*

FEES and payments
Look-up & Pay Patent Maintenance Fees

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Patent Appeals & Interferences - procedures & proceedings

Patent Publication Services

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Thank You!

Paul.Salmon@USPTO.gov