

強い特許づくり

(電気／電子分野)

2017. 5. 31

兪 炳 虎

特許法人 NAM&NAM

Speaking in a personal capacity – the views expressed are not necessarily those of Nam & Nam.

強い特許の 4 評価要素

- ① **回避設計の難易度**
公共に貢献する特許 → 顧客に貢献する特許
- ② **侵害立証の容易性**
出願のために作られた特許 → 訴訟のために作られた特許
- ③ **生存の可能性**
危険性がある特許 → 危険性がない特許
- ④ **インパクト規模**
発明者を見て作られた特許 → 世の中を見て作られた特許

発明の質と特許の質は違う！



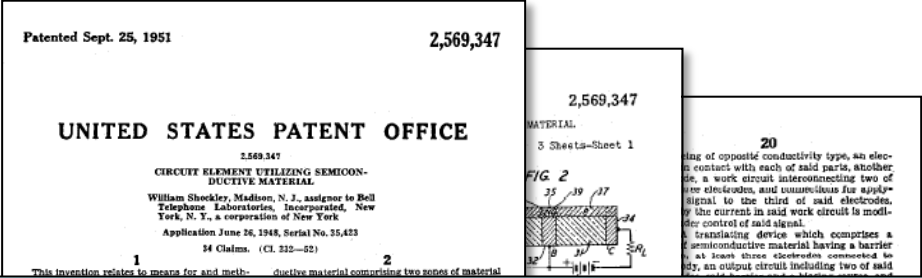
A級発明



S級特許

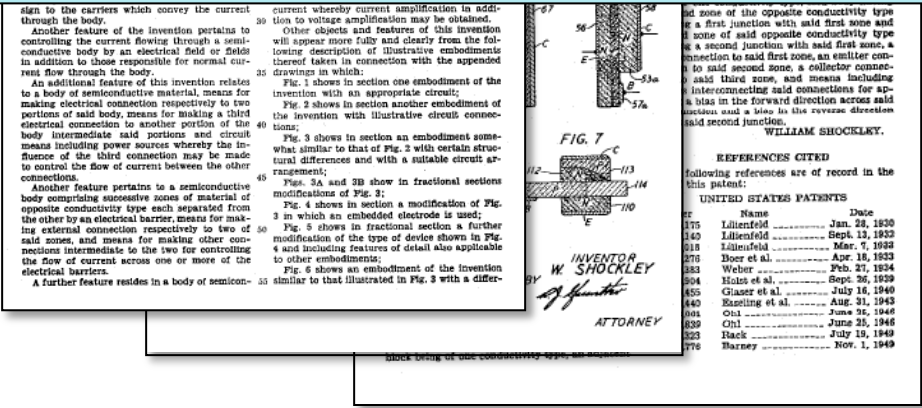
「発明はアイデアだが、特許は言語だ」

例示特許 : US 2,569,347

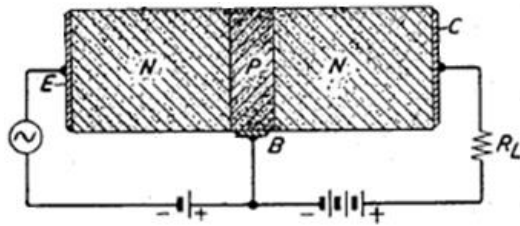


“Circuit element utilizing semiconductive material”

- ✓ 出願日: **June 26, 1948**
- ✓ 特許日: **Sept. 25, 1951**
- ✓ 発明者: **W. SHOCKLEY**



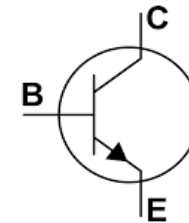
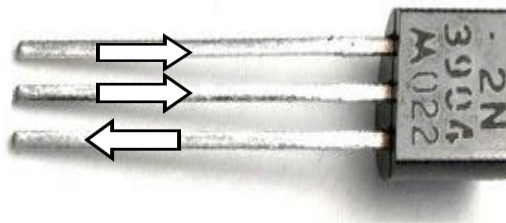
SHOCKLEY US 2,569,347



1. Amplifier
2. On/Off スイッチ

$$I_E = I_C + I_B$$

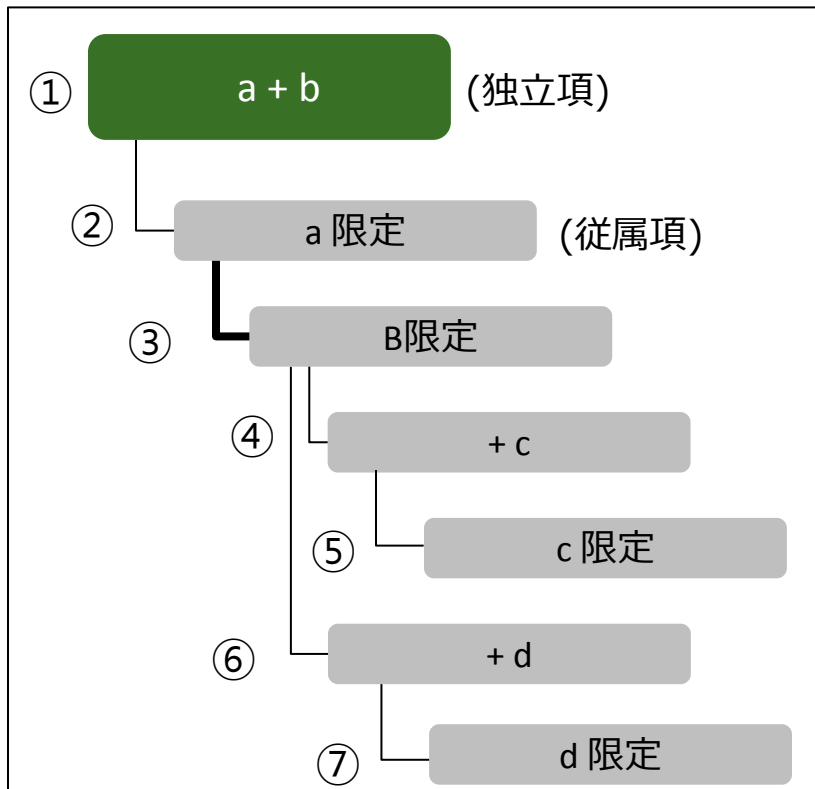
Collector
Base
Emitter



BJT (Bipolar Junction Transistors)

Point 1. 請求項の水平的構造

階層的構造



長所と短所

- ▶ 発明について理解しやすい。
- ▶ 審査／分析が容易だ。
- ▶ 単一性要件の満足判断が簡単だ。

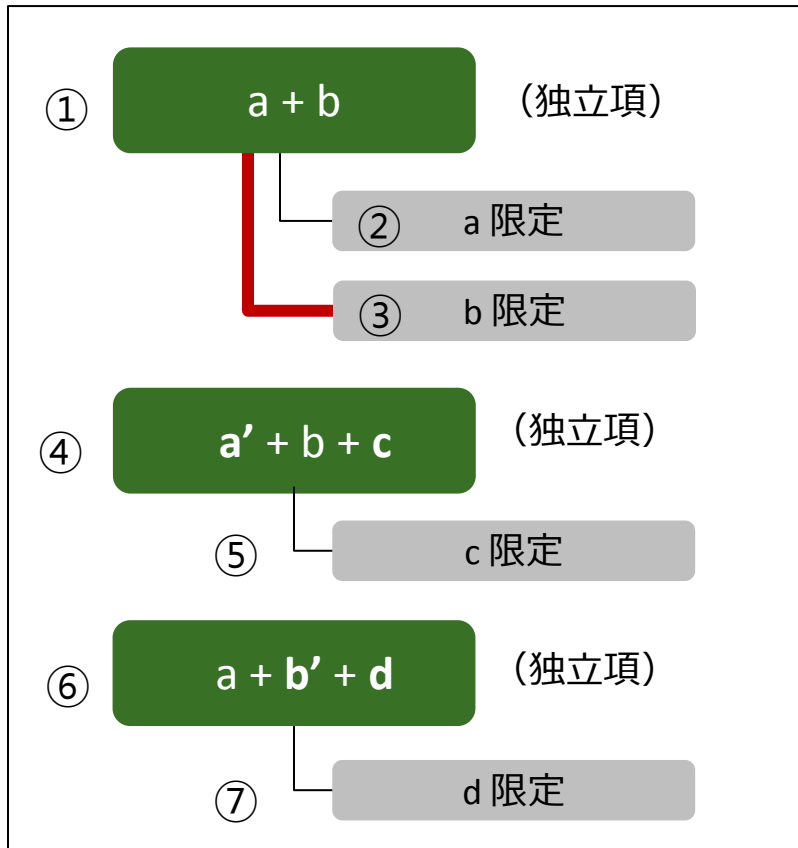
▶ 非侵害の従属

▶ 認識 (誤解)

- ① 有効性の従属
- ② 独立項別発明の概念

※ ① → ② → ③ (hierarchical 構造)

水平的構造



※ ① → ③ (hub and spoke 構造)

長所

▶ 「多数独立項多数発明」認識
(特許取引及び訴訟時)

▶ 用語使用の多様化
(b(tip) → b'(tapered portion))

▶ 損害賠償額算定のベース
(付属品 → 装置 → システム)

※ 費用の差はない。
(ただ、USPTO: +\$420/claim from 4th)

SHOCKLEY

例) US 2,569,347 (独立項 29 個 + 従属項 5 個)

1. A solid conductive device for controlling electrical energy that comprises ...
21. A solid conductive device comprising ...
22. A solid conductor comprising three superposed layers ...

5. A device for controlling electric current ...
8. A method of controlling electric current ...
10. Means for controlling the flow of electric current ...

11. Amplifying means ...
16. The method of amplifying electrical energy ...

26. A circuit element comprising a plurality of zones of ...
31. A circuit element which comprises a block of ...

4. An electrical translating device comprising ...
30. A translating device comprising a body of ...
34. A signal translating device ...

31. A signal translating device ...

31. A signal translating device ...

Point 2. 機能的／現象的記述

請求項に遠近感を付与せよ。

(独立項 v. 他独立項)

(独立項 v. 従属項)

- ✓ 様々な構造を包括
- ✓ Design Around 困難
- ✓ 立証の容易性 (使用マニュアル、動作、標準)
- ✓ 同一構造が他の機能を遂行する場合
- ✓ 現象の構造／原因／物質
- ✓ 立証の容易性 (明白な構成、ITC訴訟を考慮)

- Picture description of an invention does not always make a great patent.

構造式請求項

- ▶ **All Element Rule 立証の容易**
 - ▶ シナジー効果が無視される傾向
- ▶ **構造的詳細の同一性を要求**
- ▶ **様々な回避設計が可能**

機能式請求項

- ▶ **侵害立証の容易**
 - ▶ 使用者マニュアルなどの引用
- ▶ **広い保護範囲**
 - ▶ 様々な構造をカバー
- ※ **構造は従属項に**
 - ▶ Claim Differentiation

- Glossary

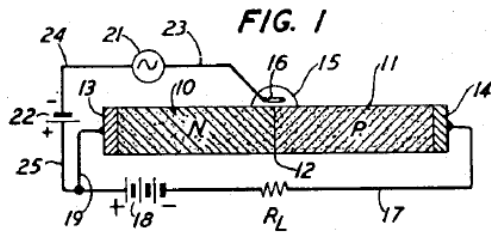
頻繁に使われる機能用語

- “programmable means for”
 - “capable of ...”
 - “adapted to ...”
 - “for mapping”
 - “operable to ...”
 - “suitable for”
 - “configured to”
- ❖ (例) “read” vs. “associate”

SHOCKLEY

例) US 2,569,347

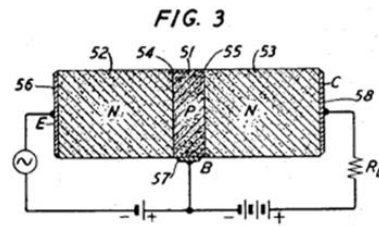
現象の限定



4. An electrical translating device comprising:

- i) ...,
- ii) means for establishing electrical connections to said zones, and
- iii) means including a third connection to said body for producing in said body an electrical field substantially parallel to said barrier.

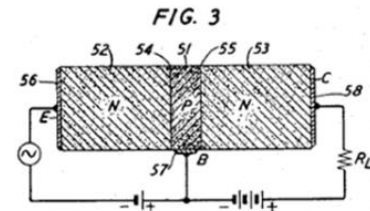
機能的限定



10. Means for controlling the flow of electric current comprising:

- i) ...,
- iv) variable field producing means for controlling the electron distribution in the intermediate zone to thereby vary the current between the separated zone.

構造の限定

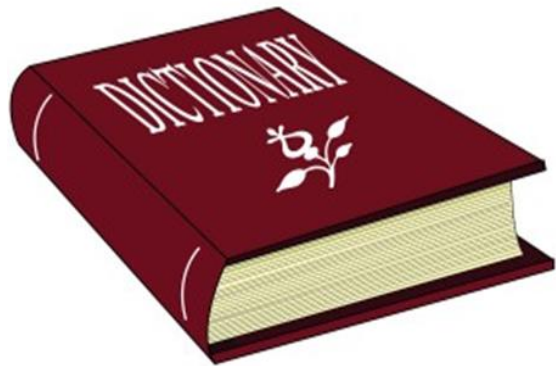


7. A device for controlling electric current comprising:

- i) a body of semiconductive material having a pair of spaced zones of the same conductivity type and a third zone of the opposite conductivity type, each of said pair of zones forming a barrier with said third zone,
- ii)...

Point 3. よく管理できた特許用語

消極的



▶ 強い推定

- 一般的な通常の意味
- 文脈

積極的

▶ 詳細な説明が最も強い根拠

(主な基準) [*Philips, CAFC en banc '05*]

- 辞書編集者

▶ 均等論適用の可能性増大

SHOCKLEY
 例) US 2,569,347

辞書編集者

- The term "**impurities**" is intended to include intentionally added constituents as well as any which may be included in the basic material as found in nature or as commercially available.
- The expression "**significant impurities**" is here used to denote those impurities which affect the electrical characteristics of the material such as its resistivity, photosensitivity, rectification, and the like,...
- The term "**barrier**" or electrical barrier used in the description and discussion of devices in accordance with this invention is applied to ...

MPF element

10. Means for controlling the flow of electric current comprising ...,

- **means for** making substantially ohmic contact to each of said zones, ... and
- **variable field producing means for** controlling the electron distribution in the intermediate zone to thereby vary the current between the separated zones.

- MPF (means-plus-function)
 - … (具体的構造等ではなく) 機能的に表現された部分を含む特許請求の範囲

MPF element

e.g. “means for storing data”

▶ 「means」用語 → MPF (推定)

- ❖ 機能遂行のための十分な構造が開示されていると、推定は反覆される。

▶ 詳細な説明に機能遂行のための構造を開示していなければならない。

- ❖ 公知技術の場合、含める。
- ❖ SW特許：必須段階を示す
アルゴリズムを開示
- ▶ 違反時：不明瞭による特許無効

取扱い

- ▶ 詳細な説明に開示された
当該機能を遂行するための
**すべての構造が保護範囲に
含まれる。**

- ❖ 等価物を含める。

SHOCKLEY 例) US 2,569,347

Fig. 1 shows one embodiment of the invention with an appropriate circuit;

Fig. 2 shows another embodiment of the invention **with illustrative circuit connections**;

Fig. 3 shows an embodiment somewhat similar to that of Fig. 2 **with certain structural differences** and with a suitable circuit arrangement;

Figs. 3A and 3B show **modifications** of Fig. 3:

Fig. 4 shows **a modification** of Fig. 3 in which an embedded electrode is used;

Fig. 5 shows **a further modification** of the type of device shown in Fig. 4 and including features of detail also applicable to other embodiments;

Fig. 6 shows an embodiment of the invention similar to that illustrated in Fig. 3 **with a different arrangement for making connection** to part of the device; ...

Fig. 9 shows a device similar to that of Fig. 8 **with a different circuit arrangement**.

Fig. 10 shows **a two-electrode device otherwise similar** to that of Fig. 3, adaptable as a transit time diode with energy level diagrams useful in explaining its operation; ...

Point 4. 禁反言 (Estoppel)

What did you say ...

MIRANDA WARNING

1. YOU HAVE THE RIGHT TO REMAIN SILENT.
2. ANYTHING YOU SAY CAN AND WILL BE USED AGAINST YOU IN A COURT OF LAW.

- 先行技術との差別化
- 本発明の目的
- 作用効果
- 発明のメリット
 - ✓ OA 意見書
 - ✓ 出願補正

How will it work...

- ▶ Disclaimers or Disavowal
- ▶ Narrower claim construction
- ▶ Prosecution History Estoppel
 - ✓ Limitation of the Doctrine of E
quivalents

- The fewer the better

できるだけ

- ✓ **発明の構成を強調**
 - 目的と効果はハイレベルで記述
- ✓ **背景技術及び効果の言及は最小限に**
 - 当該技術の一般的現象に限定
- ✓ **OA 意見書においては口を慎む**
 - 発明の構成について言及するのは控える。

Patent Profanity

“the present invention,” “critical,” “special,” “peculiar,” “superior”
 “necessary,” “essential,” “key,” “every,” “must,” “never,” “only,” “absolutely,”



Thank You.

俞炳虎

Ben (Beyong-ho) Yuu
Sr. Partner
Patent Attorney (Korea & US)
(byuu@nampat.co.kr)



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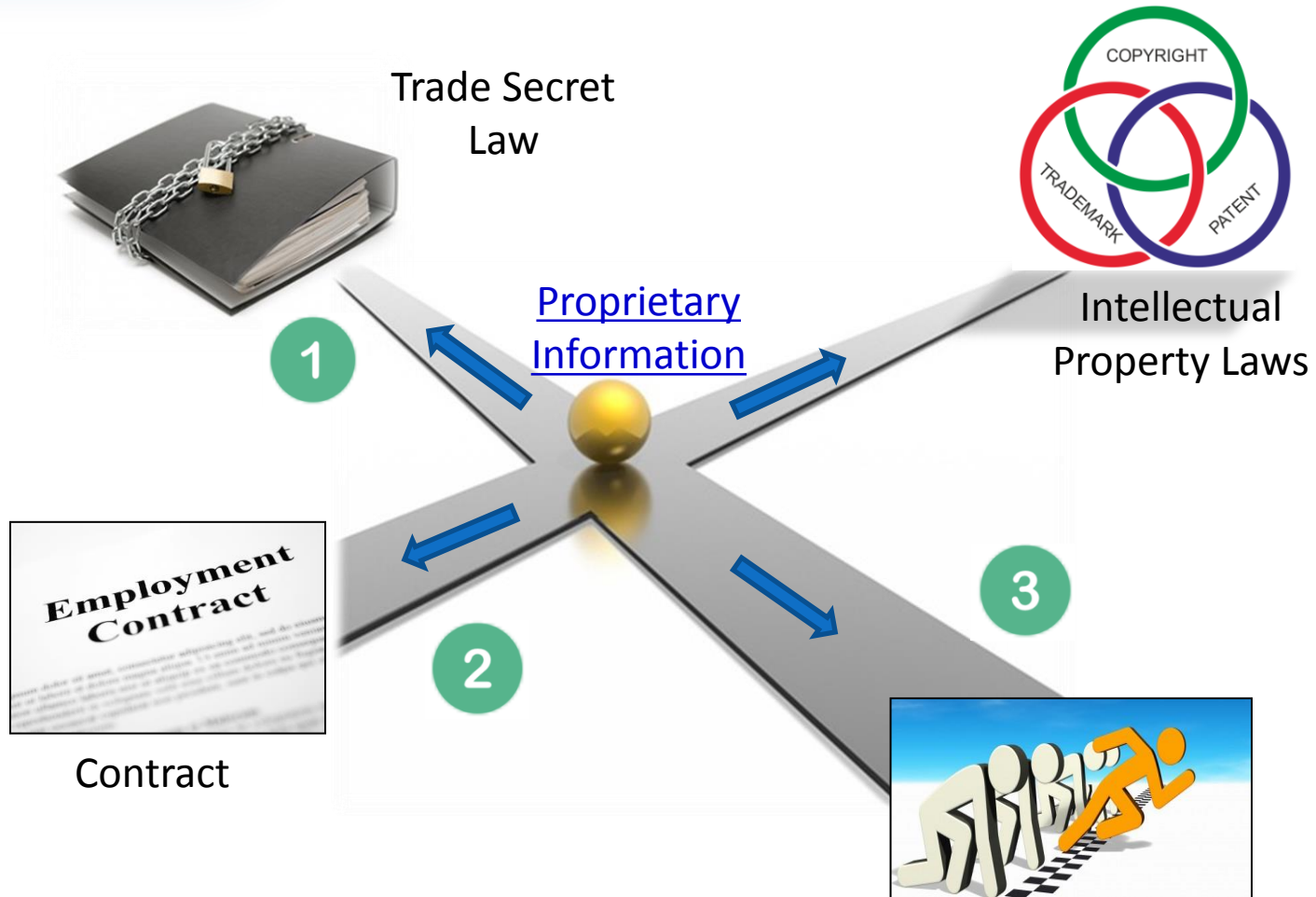
#1. Attachment

Trade Secret & Unfair Competition

Under the Korean
UNFAIR COMPETITION PREVENTION
& TRADE SECRET PROTECTION ACT

By NAM & NAM

How to Protect?



Criminal Law:

§§ 355 & 356. (occupational) embezzlement ≤ 5(10) yrs.

§329 . Larceny ≤ 6 yrs.

§155(1) . Destruction of Evidence ≤ 5yrs.

Unfair Competition

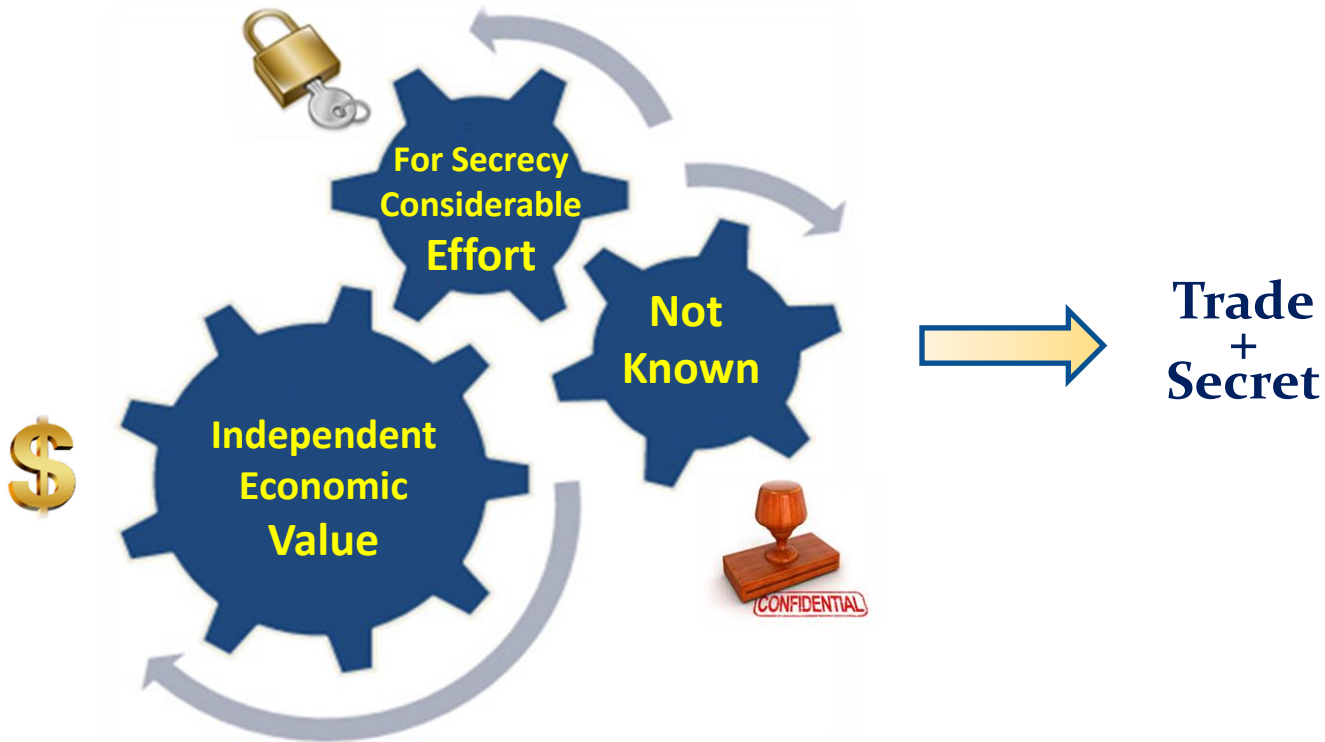
Law § 2.1.(j) (Since '14/1/31)



Trade Secret Law

1

§9-2. UNFAIR COMPETITION PREVENTION AND TRADE SECRET PROTECTION ACT





Trade Secret Law

§2(3). UNFAIR COMPETITION PREVENTION AND TRADE SECRET PROTECTION ACT



Infringement
of Trade Secret

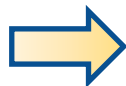




Trade Secret Law

§§10,11,18. UNFAIR COMPETITION PREVENTION AND TRADE SECRET PROTECTION ACT

Infringement of Trade Secret



1. Injunction:

- ① Prohibition / Prevention
- ② Destruction of the goods
- ③ Removal of the facilities

2. Monetary Damage

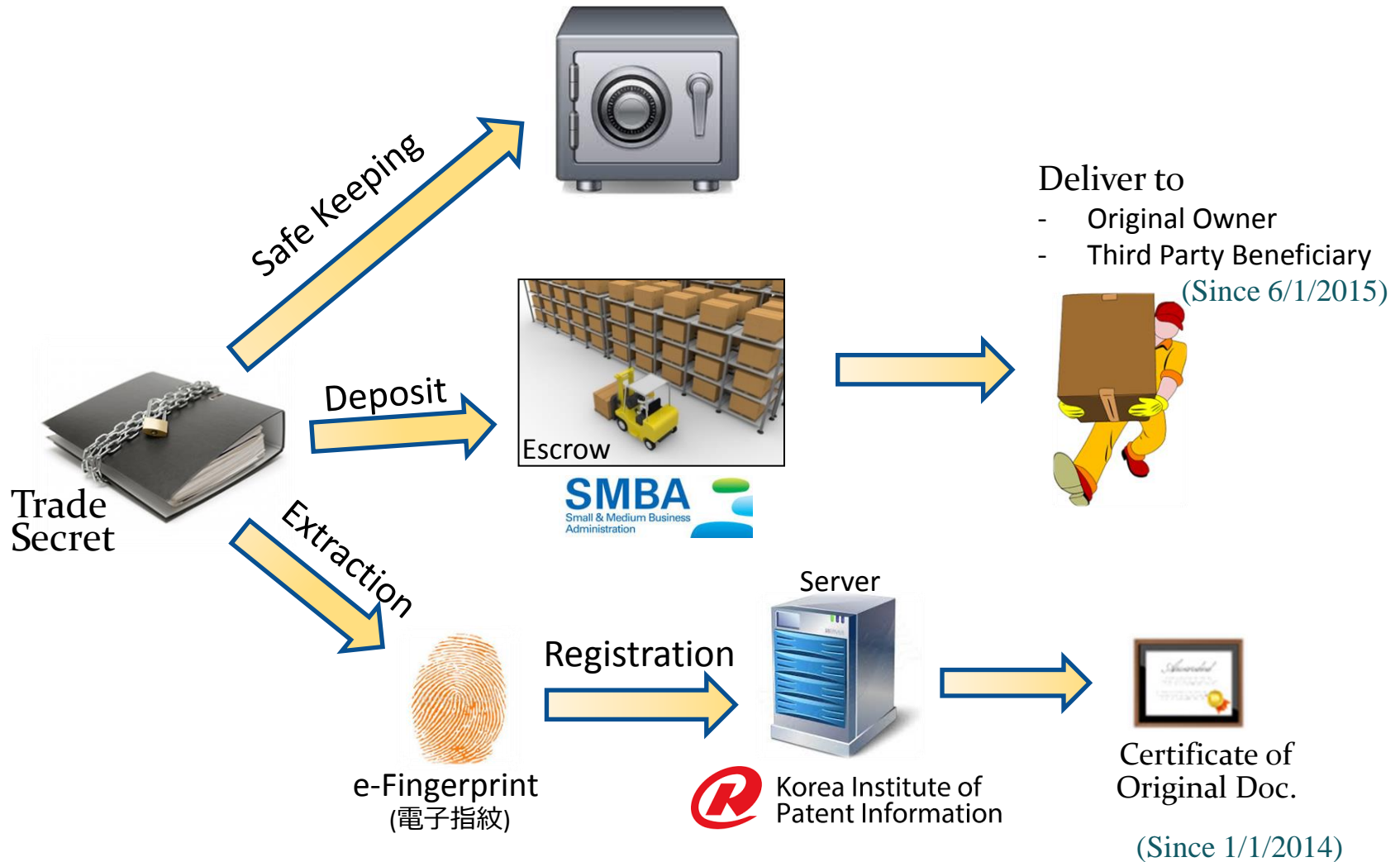
3. Criminal Penalty:

- ① imprisonment for < 5 years, or
- ② a fine \leq 50 million won
 - ❖ If $(10 \times \text{the amount of profit}) > 50 \text{ million won}$,
a fine = $(2 \sim 10 \times \text{the amount of profit})$

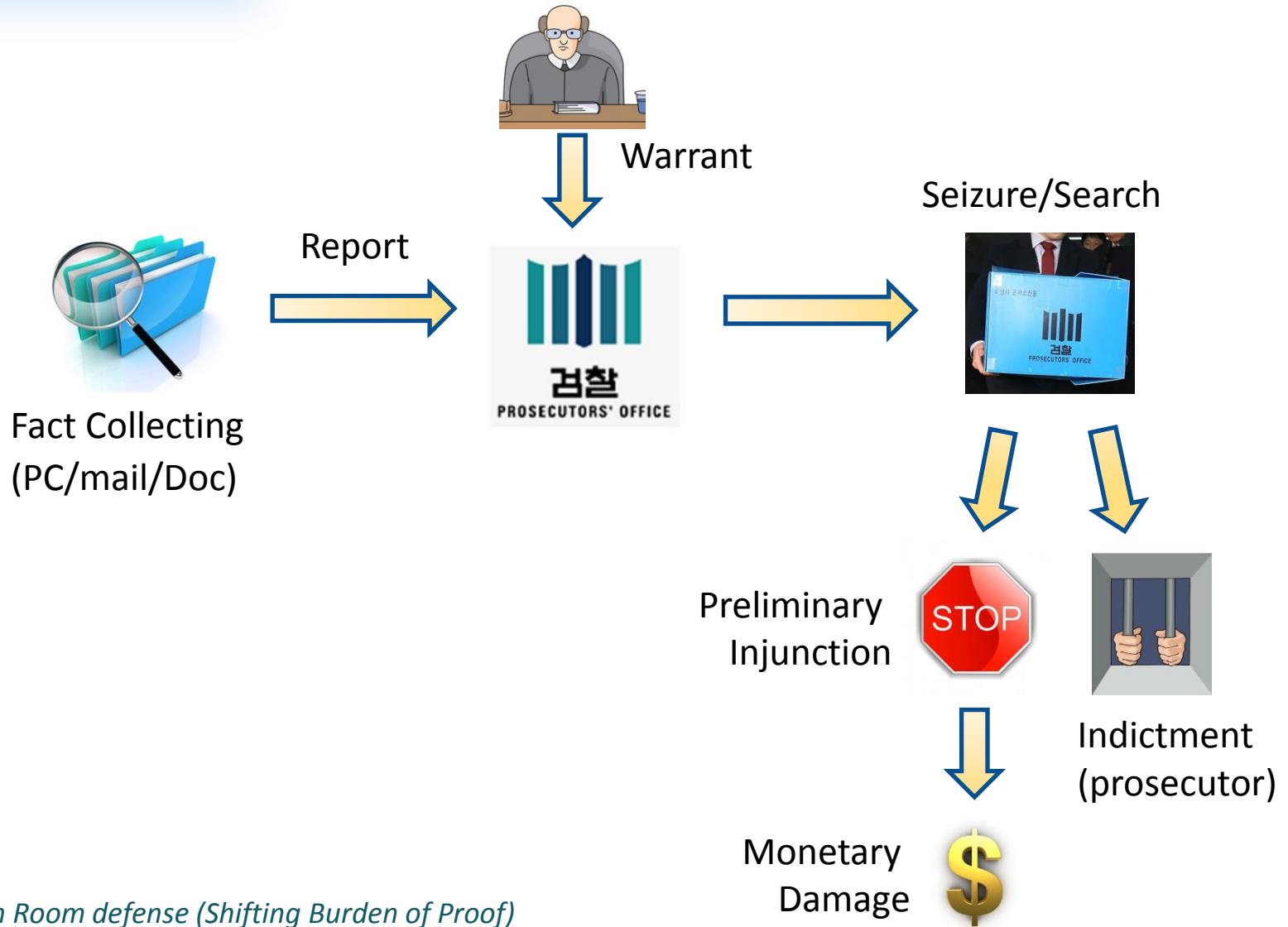
Prohibiting from competing work w/o Agreement (Sct. '03)

Evidence

§2.1. ACT ON THE PROMOTION OF COLLABORATIVE COOPERATION BETWEEN LARGE ENTERPRISES AND SMALL-MEDIUM ENTERPRISES



Proceeding



- *Clean Room defense (Shifting Burden of Proof)*



Contract

2012 KaHab 103
Daegu District Ct., 2012

2

- Confidentiality Agreement
- Non-compete Agreement

- ① To protect the trade secret
- ② Reasonable period (1 ~ 5 yrs depending on areas)
- ③ Contract Consideration

- ✓ *Public policy doctrine*
- ✓ *Constitutional Rights of a freedom to choose job or business*



Contract

**Breach
of Non-compete
Agreement**



1. (Preliminary) Injunction:

➤ Competition Prohibition /
Prevention

❖ If employment was involuntarily
terminated, the Non-Compete
Agreement is valid under the doctrine of
inevitable disclosure.



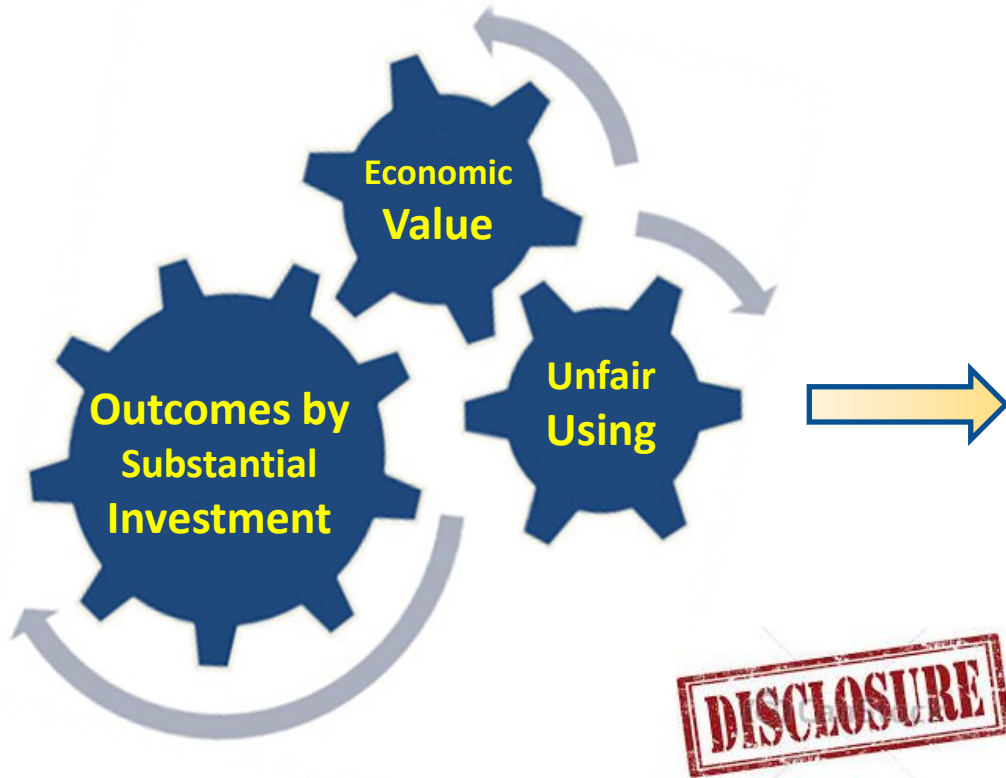
2. Monetary Damage

- NDA's abusive "but not limited to"



Unfair Competition Law §2.1.(j)

3



§2.1(j). UNFAIR COMPETITION PREVENTION AND TRADE
SECRET PROTECTION ACT

(Since '14/1/31)

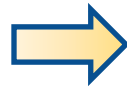
**Unfair
Competition**



Unfair Competition Law §2.1.(j)

§§4&5. UNFAIR COMPETITION PREVENTION AND TRADE
SECRET PROTECTION ACT

**Unfair
Competition**



1. (Preliminary) Injunction:

- ① Prohibition or Prevention
- ② Destruction of the goods
- ③ Removal of the facilities

2. Monetary Damage

- ❖ No Criminal Penalty Provision

Best Option?

