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**Case study of Control of  
Intellectual Property (CIP) that  
uses I-TRIZ and idea generation**

Gen Abiko (MINORU International Patent Office)

# 1. Purpose

Through the case study of the small animal capture tool (rattrap), the method the intellectual property control by TRIZ is effectively developed is examined.

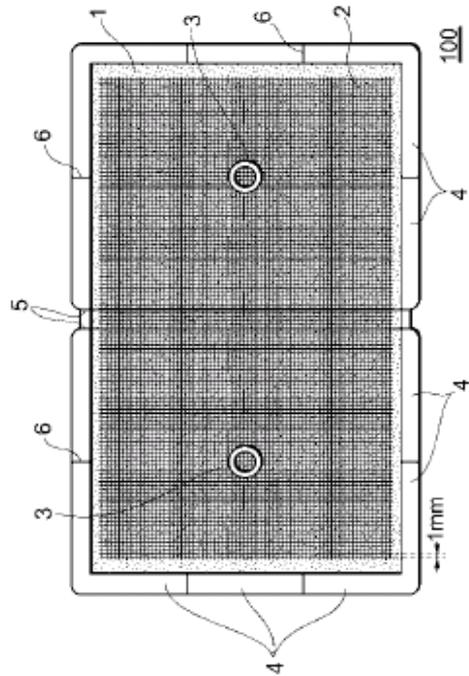
# 2. Method

The 4476851th small animal capture tool of the patent (Hereafter, it is said this case patent) was taken up as a research case with this CIP.

(19) 日本国特許庁 (JP)	(12) 特 許 公 報 (B2)	(11) 特許番号 特許第4476851号 (P4476851)
(45) 発行日 平成22年6月9日 (2010. 6. 9)	(24) 登録日 平成22年3月19日 (2010. 3. 19)	
(51) Int. Cl. F 1		
AO 1 M 23/00 (2006. 01)	AO 1 M 23/00	A
AO 1 M 1/14 (2006. 01)	AO 1 M 1/14	F
	AO 1 M 1/14	J
請求項の数 4 (全 8 頁)		
(21) 出願番号 特願2005-72988 (P2005-72988)	(73) 特許権者 504461792 株式会社エコップ	
(22) 出願日 平成17年3月15日 (2005. 3. 15)	東京都葛飾区青戸二丁目14番6号	
(65) 公開番号 特開2006-254716 (P2006-254716A)	(74) 代理人 100082050 弁理士 佐藤 幸男	
(43) 公開日 平成18年9月28日 (2006. 9. 28)	(72) 発明者 新田 修一 東京都葛飾区青戸二丁目14番6号	
審査請求日 平成20年3月14日 (2008. 3. 14)	審査官 南澤 弘明	
	(56) 参考文献 実開昭63-134685 (JP, U) 実開平03-056383 (JP, U)	
最終頁に続く		
(54) 【発明の名称】 小動物捕獲具		
(57) 【特許請求の範囲】		
【請求項 1】		
台紙から形成される小動物捕獲具において、		
前記台紙に剥離可能に因着される剥離紙と、		
前記剥離紙上に塗布される粘着剤と、		
前記粘着剤上に網目状に形成された引掛部材とを有することを特徴とする小動物捕獲具		

# Explanation of this case patent

【図1】



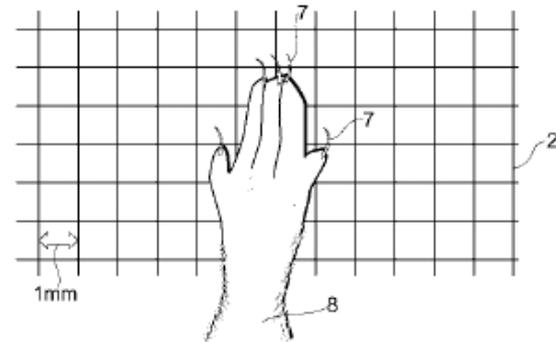
小動物補修具100の内面側を示す平面図

【図2】



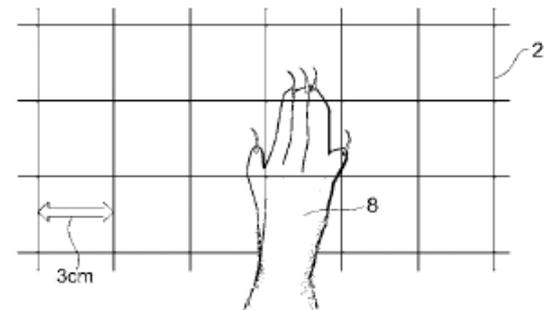
台紙、粘着剤1及びメッシュ2の位置関係図

【図5】



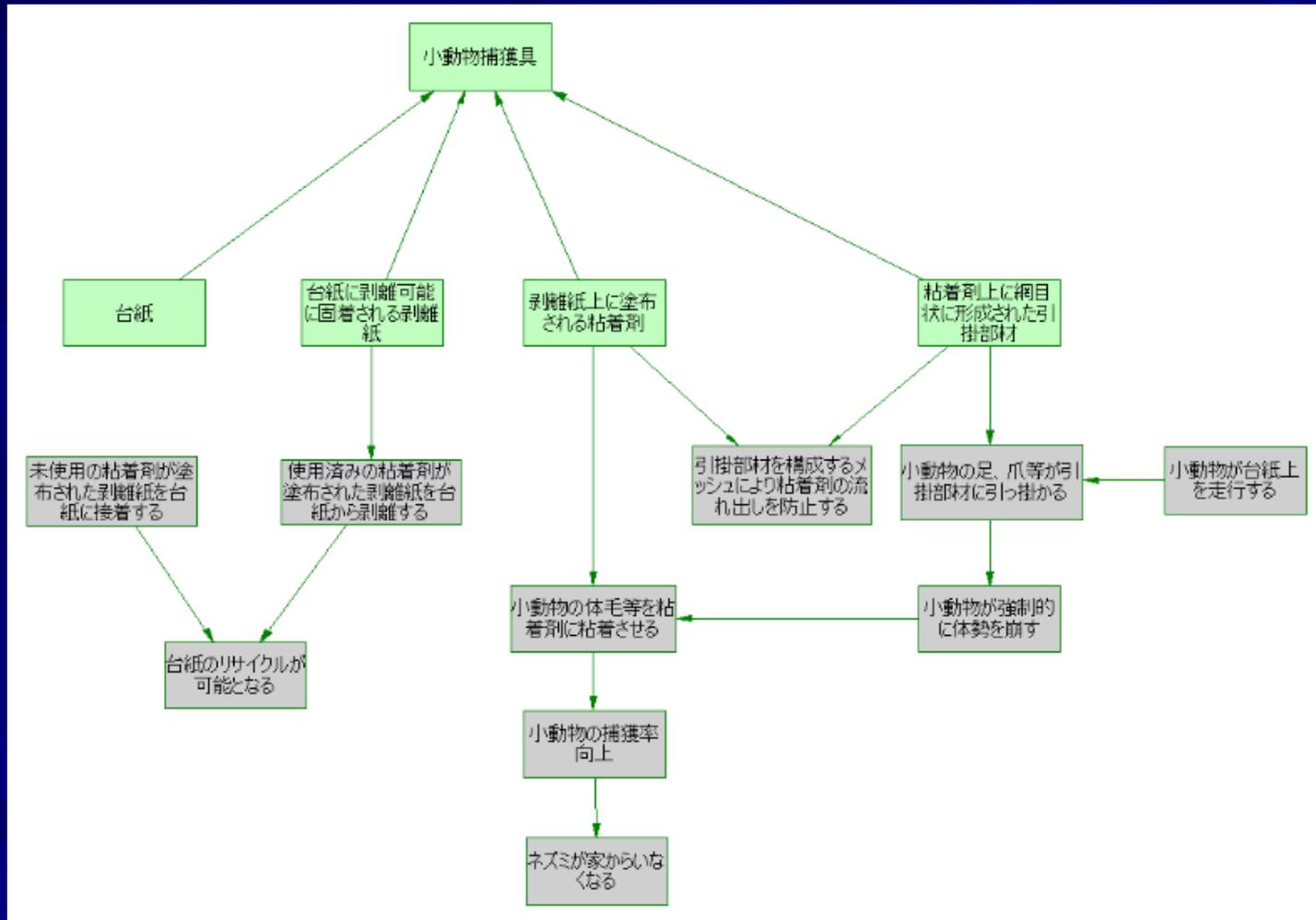
メッシュ2と足爪の位置関係図

【図7】



メッシュ2と足の位置関係図

# Diagram made by IWB



- The idea to evade from the composition requirement by the brainstorm by the CIP study meeting of sponsoring ideation Japan Ltd. was created based on the made diagram.
- In the process of creating the idea, the evasion idea from the composition requirement was not enumerated at random. It squeezed to the evasion idea required to raise the operation advantage of "Point to stick small animals' body hairs etc. to the adhesive material" and "Capture rate improvement of small animals" and the idea was shown.
- As a result, the idea that reached 25 was able to be created.
- The brainstorm that centered on the diagram was actually done in the process of creating this idea. In addition, the idea is created getting a hint from the operator mounted on IWB.

### 3. Result

A typical idea is shown among created ideas below.

#1 It evades from this invention that puts up a net by putting the net like the concentric circle like the lattice.

#2 Because a gel adhesive material is spread, the net is lost.

#3 The getting twisted part where the adhesive material was integrated with the function of the net is put on arachnoid.

#4 A lot of spheroidal materials are displayed, it tips the balance, and the composition of the net of this invention is omitted.

#5 It evades from this invention by alienating the mesh and the adhesive material by entering of the rat the very limit.

#6 It stiffens gradually by mixing the curing agent with two liquids of the adhesive, and the rat is caught, and the composition of the net is omitted.

# Measurement of evasion degree with this case invention that uses number of elements of one consideration case

## ■What are the number of case elements?

- Qualitative index assumed to area within the technical range of patented invention correlativity is the highest.
- The one that how much limitation of each component was put in description of claim was expressed numerically. (Abiko and another (2008))
- The number of case elements counts and expresses only an element necessary to achieve the proposition by the verb among nouns (The noun phrase is included) modified to the verb defined in the claim numerically.

【特許請求の範囲】 (open the 2010-231883th special official report)

【請求項 1】

ダイナミック・ランダム・アクセス・メモリを有する第 1 メモリアレイと、

前記第 1 メモリアレイにアクセスするメモリコントローラとを有し、

前記メモリコントローラは、温度計測モジュールを有し、前記温度計測モジュールによって測定された温度に基づいて前記第 1 メモリアレイのリフレッシュ間隔を変更することを特徴とする半導体装置。

▪ The noun phrase "DRAM" becomes the verb and a pair "Have" that this is modified in the component "The first memory array". It is a case element to play a condition role for the proposition achievement.

▪ In the component "Memory controller", the noun phrase "The first memory array" becomes the verb and a pair "Access it" that this is modified. It is a case element to play a condition role for the proposition achievement.

▪ The component "The first memory array" and the component "Memory controller" pair off with the verb "Have" modified to this respectively when seeing in the name of the invention "Semiconductor equipment". It is a case element to play a condition role for the proposition achievement.

The total for one claim of the case element extracted like this is a number of case elements in the claim.

→The evasion degree with this case invention is measured through the number of case elements of these claims.

Generated ideas #1 - #6 → establish each as a concept



It replaces it with sentences at the same level as the claim.



The compositions are compared, and the part of the difference is counted by the number of case elements.

This case invention

【請求項 1】

台紙から形成される小動物捕獲具において、  
前記台紙に剥離可能に固着される剥離紙と、  
前記剥離紙上に塗布される粘着剤と、  
前記粘着剤上に網目状に形成された引掛部材とを有することを特徴とする小動物捕獲具

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Evasion degree to this case patent of created idea

アイデア	#1	#2	#3	#4	#5	#6
回避度合(格成分数)	1	4	10	3	2	7

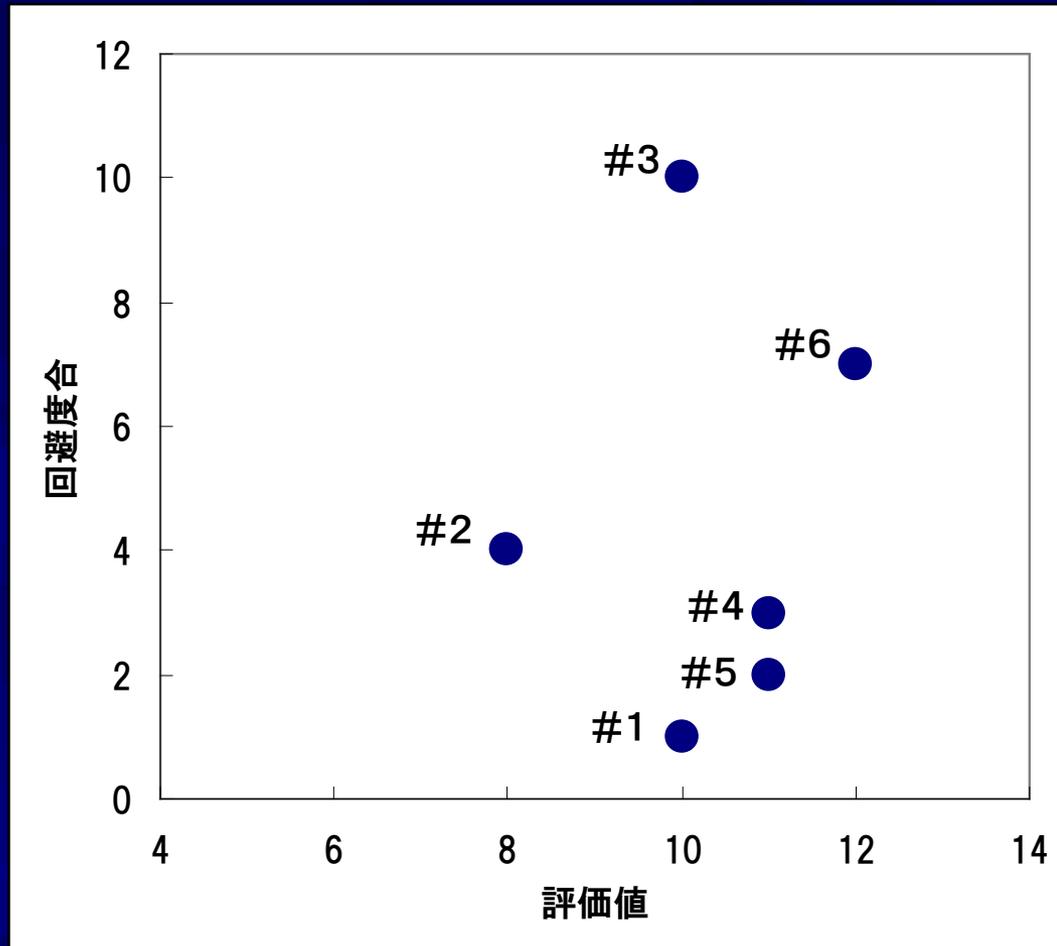
## Evaluation result of idea

	捕獲性	独自性	実現性	後処理性	評価値
#1	3	1	3	3	10
#2	2	4	1	1	8
#3	2	5	2	1	10
#4	2	4	2	3	11
#5	2	3	3	3	11
#6	1	5	5	1	12

- These evaluation items are assumed to be the one put with a main objective of utility as the technology.
- To prevent the subjectivity from the evaluation's starting, the evaluation value is set under the mutual agreement of all constituent members of the CIP study meeting.

Idea # 6 was a high reputation value,  
and became the result of # 4 and #'s 5 continuing next most.

# Relation between evaluation value and evasion degree



#It was shown that the idea of 3 and # 6 was more suitable.

## 4. Conclusion

- Through the case study of the small animal capture tool (rattrap), an intellectual property by TRIZ was controlled. In addition, making to the diagram and the idea putting out were done by using IWB. In addition, the created idea is made a diagram and importance the firm stop of the rush mat has understood the composition of the concept.
- It was actually verified that the overall judgment not biased on the other hand of either became possible because it evaluated it with two axes of "Utility as the technology" and "Evasion degree" about the evaluation axis.
- It has been understood that a more effective concept creation becomes possible because it feeds back to the idea putting out again based on these evaluation results, too.