

## The Next Generation Luggage Lock



# Presentation Overview:

- Stanton Concepts Background
- 1st Generation TSA Locks – Issues
- Introduction of Stanton Concepts Next Generation TSA Lock

# Background: Stanton Concepts, LLC

Founded in 1987 to develop new concepts and Intellectual Property in security hardware technology. SCI is a recognized thought leader in mechanical security.

- Physical Security Solutions

- Consumer
- Commercial
- Government/Specialized

- Robert W. Loughlin

- > 50 years Engineering, Manufacturing, Design and Management Experience
- 14 Issued Patents, 16 Pending

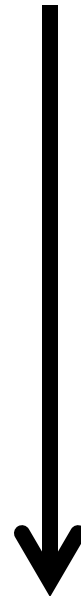
- John P. Loughlin

- > 25 Years Engineering, Manufacturing, Design and Management Experience
- 10 Issued Patents, 16 Pending

# Stanton Concepts: Product/Concept Families

- PrivaSeal®
  - Portfolio of privacy concepts incorporating Tamper Indication
- Multi Function / Multi Custody Locks
  - Privacy Class (ASTM F-2348)
  - Security Class (ASTTM F-883)
- The LINK Family
  - Chain & Cable
  - Cargo et al
- Robotic Key System
  - Revolutionary New Lock/Key System

1987



2012

# 1<sup>st</sup> Generation Multi-Function Locks

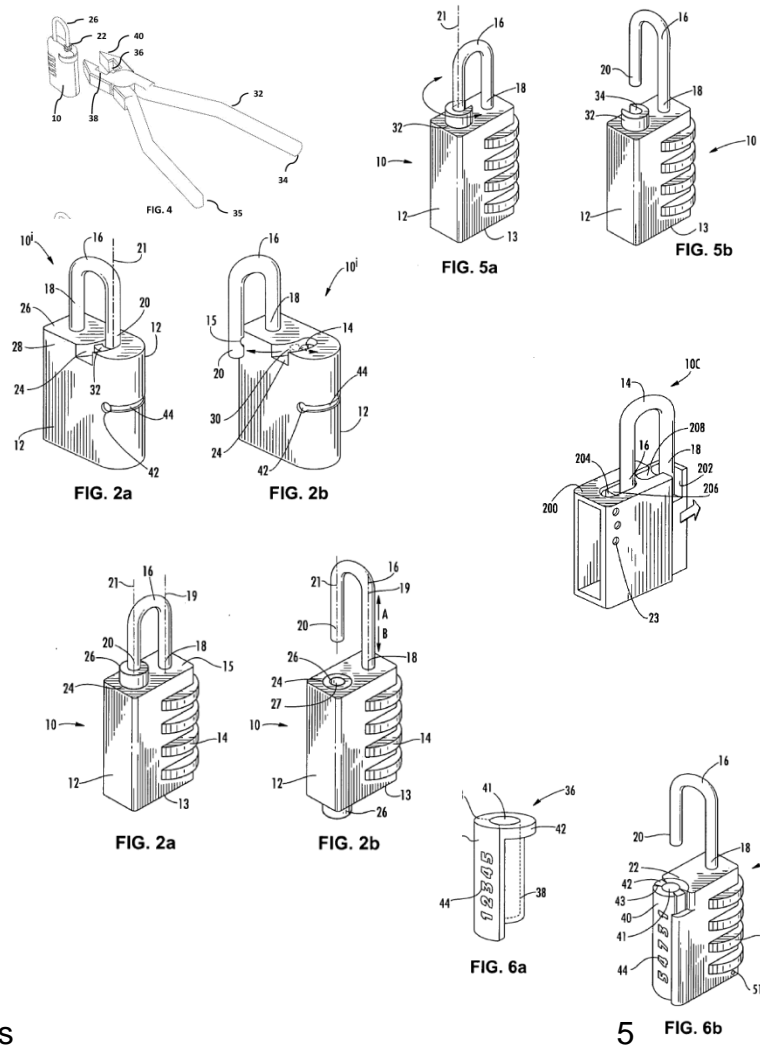
- Patents Issued:

- US 7,021,092 Apr 2006
- US 7,434,426 Oct 2008
- US 7,424,812 Sep 2008
- US 7,793,406 May 2011
- US 7,913,526 Mar 2011
- US 8,047,027 Nov 2011 (method claims)
- US 2011-0138865 (allowed pending publication)

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- Patents Pending:

- 20090188282;
- 20110079054 (next gen)
  - Important claims have been allowed, Dec. 2011
- + More un-published applications
- + on going CIPs



## SCI's Stake in 1<sup>st</sup> Gen. Multi-Function Locks:

- Notification of Provisional rights February 2005
- Letter inviting licensees
- Asserting rights
- Pending CIP's further broaden claims to cover current products
- Further expansion of Tamper Indication and Frangible elements

# 1<sup>st</sup> Generation Multi-Function Locks

## Litigation & IP Issues Complicate Market:

- Litigation:
  - Safe Skies / Travel Sentry et al
  - International Trade Commission complaint by Safe Skies,
  - Other?
- IP issues:
  - Stanton Concepts
    - Structural
    - Method

# TSA's Challenge, too many keys:

- “Keys are a BIG pain in the #@%\$”
  - ~450 Airports
  - ~4000 Kits
    - Key Ring Contains all TSA Keys:
      - TSA001
      - TSA002
      - TSA003
      - TSA004
      - TSA005
      - TSA007
      - “SAFE SKIES”
    - 8” Side Cutting Electricians Pliers (the grand master key)
    - 24” Bolt Cutters (the supreme grand master key)
- “... just cut the locks off”



# The Industry's Challenge: Uncertainty

- Market Size:
  - ~7.5 Million Locks/Year (US)
- Uncertainty:
  - Litigation
  - Future TSA position
- Costs:
  - Key Cylinder
  - Licensing
  - Legal



5 Vaughn Drive, Suite 105 | Princeton, New Jersey 08540 | PH 609-720-1200 | FAX 609-720-0620 | www.travel-goods.org

State of the U.S. Travel Goods Market 1999 - 2008 (In # of Pieces)



# of Pieces	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Change 07-08
Luggage	51,739,897	62,357,758	71,169,067	86,750,488	81,253,524	91,080,236	99,524,478	87,305,754	100,844,586	82,485,436	-18.2%
Business Cases/Computer Bags	48,823,370	40,118,607	44,215,999	42,344,437	55,440,281	45,843,544	41,615,628	46,743,583	49,232,088	43,533,000	-11.6%
Travel/Sports Bags	822,778,235	1,001,983,865	861,848,781	814,267,723	845,596,001	886,333,034	951,809,893	970,240,477	1,205,275,537	1,002,852,372	-16.8%
Handbags	211,199,806	267,422,668	263,175,719	278,614,852	321,516,761	379,841,876	399,024,045	358,269,561	359,943,801	351,173,890	-2.4%
Personal Leather Goods	517,809,540	588,651,674	530,564,952	528,399,869	591,583,048	585,438,063	596,038,855	569,701,015	538,524,560	490,511,097	-8.0%
Backpacks	56,270,132	54,589,738	54,157,262	68,095,800	75,908,845	77,346,747	84,619,737	96,393,931	100,830,493	100,707,104	-0.1%
Luggage Locks (Base Metal)	14,988,632	21,921,097	18,187,323	11,047,014	11,992,826	5,747,588	7,889,159	8,140,261	7,290,184	7,253,981	-0.5%

\* All numbers are TGA estimates. Please see last page for explanation and sources.

# The Consumer's Challenge: More for Less

- Existing Products Offer Low Security:
  - 1 Key opens 10's of millions of locks of the same family
  - Locks easily picked:
    - YouTube ~750 videos on bypassing luggage locks
    - Google ~85,000 results from "TSA Lock Picking" query
  - Keys are copied:
    - Instructional videos on the Web
    - Easily duplicated
    - 3D printing
  - No Tamper Indication
    - Current products easy to bypass, and no indication of violation
- Cost

Stanton Concepts:

...new generation lock solves 1<sup>st</sup> generation issues

## SCI's Next Generation Lock advantages:

- TSA...No Keys Necessary: ✓
  - Faster And More Convenient
  - Uses TSA Standard Issue Tool
  - Minimal Training
- Industry...Reduced Uncertainty: ✓
  - Lower Cost, Simpler Product
  - Higher Margins
  - No Known Patent Conflicts
- Consumer...More for less: ✓
  - Improved Security
  - Tamper Indication
  - Lower Cost



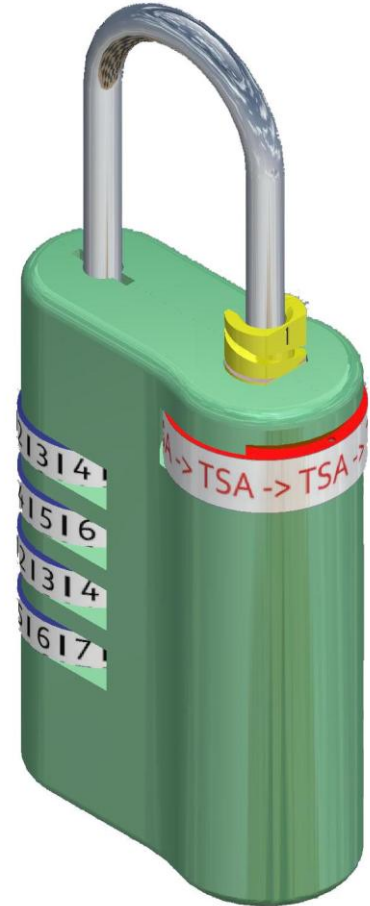
# SCI's Next Generation Lock:

Patent Pending

*less*

## Key features:

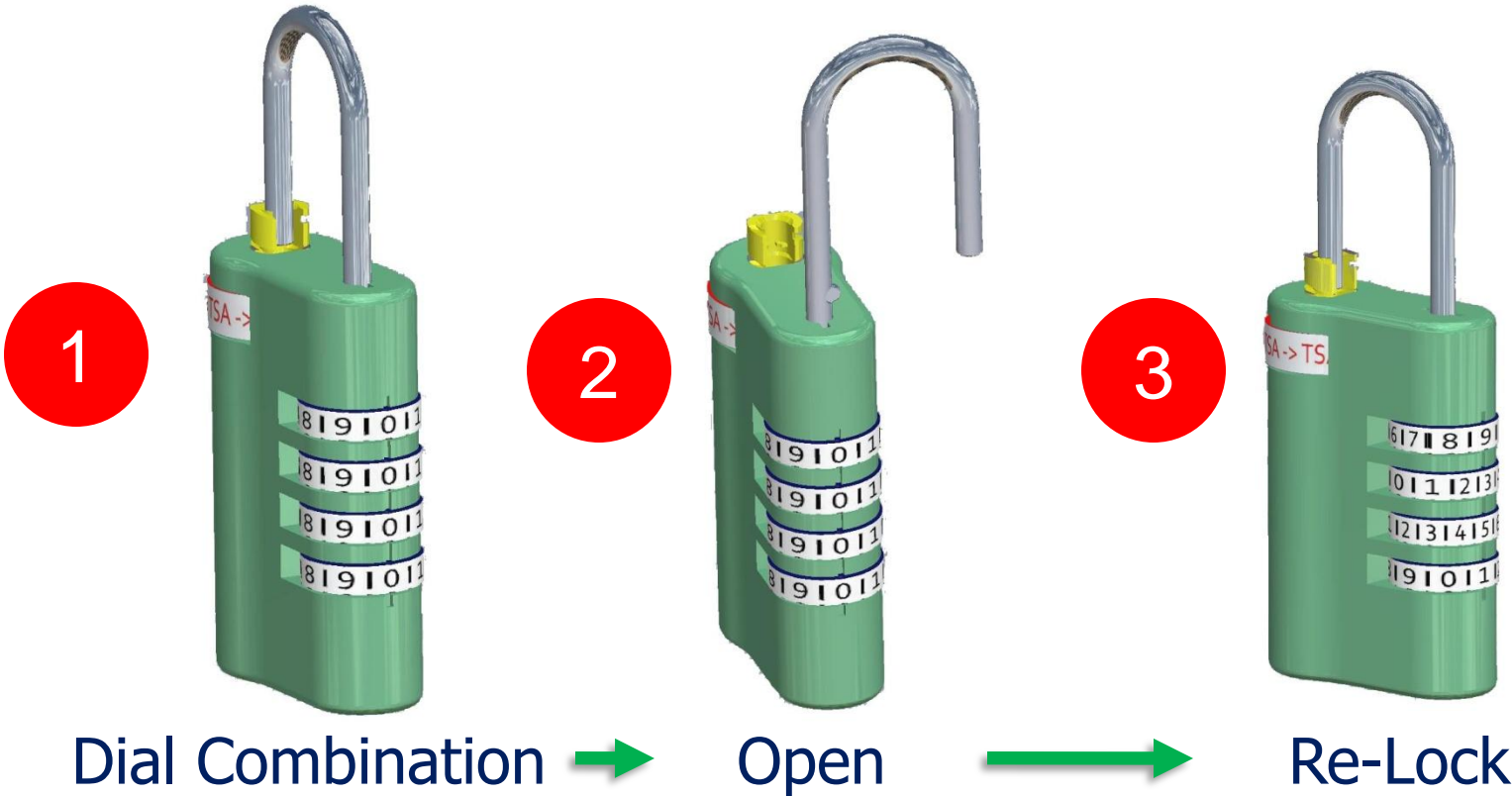
- No Special Key or Tool
- Clean IP
  - claims have been allowed
- Lower Cost
- Improved Security
- Tamper Indicative



# SCI's Next Generation Lock:

Patent Pending

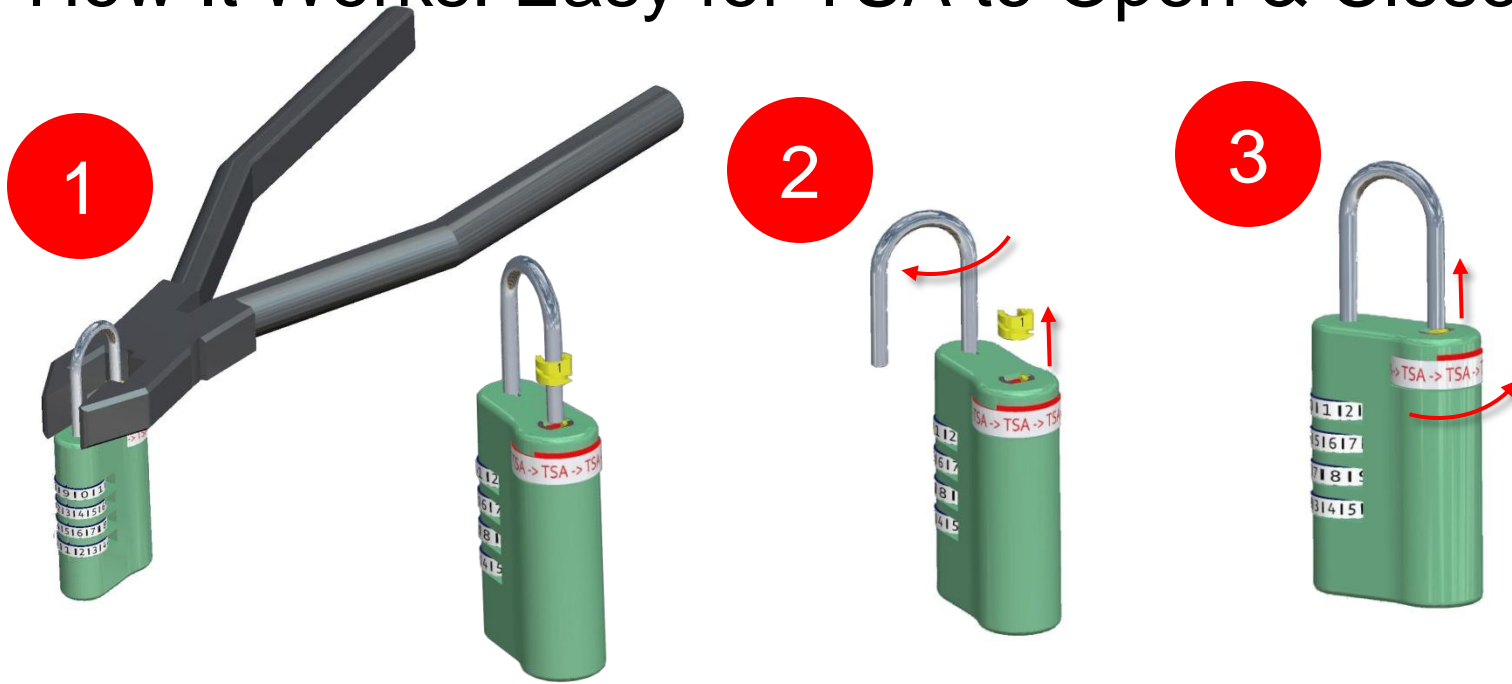
## How It Works: No Change For The Consumer



# SCI's Next Generation Lock:

Patent Pending

## How It Works: Easy for TSA to Open & Close



Clip Cup with  
standard tool  
(8" Pliers)



Inspect

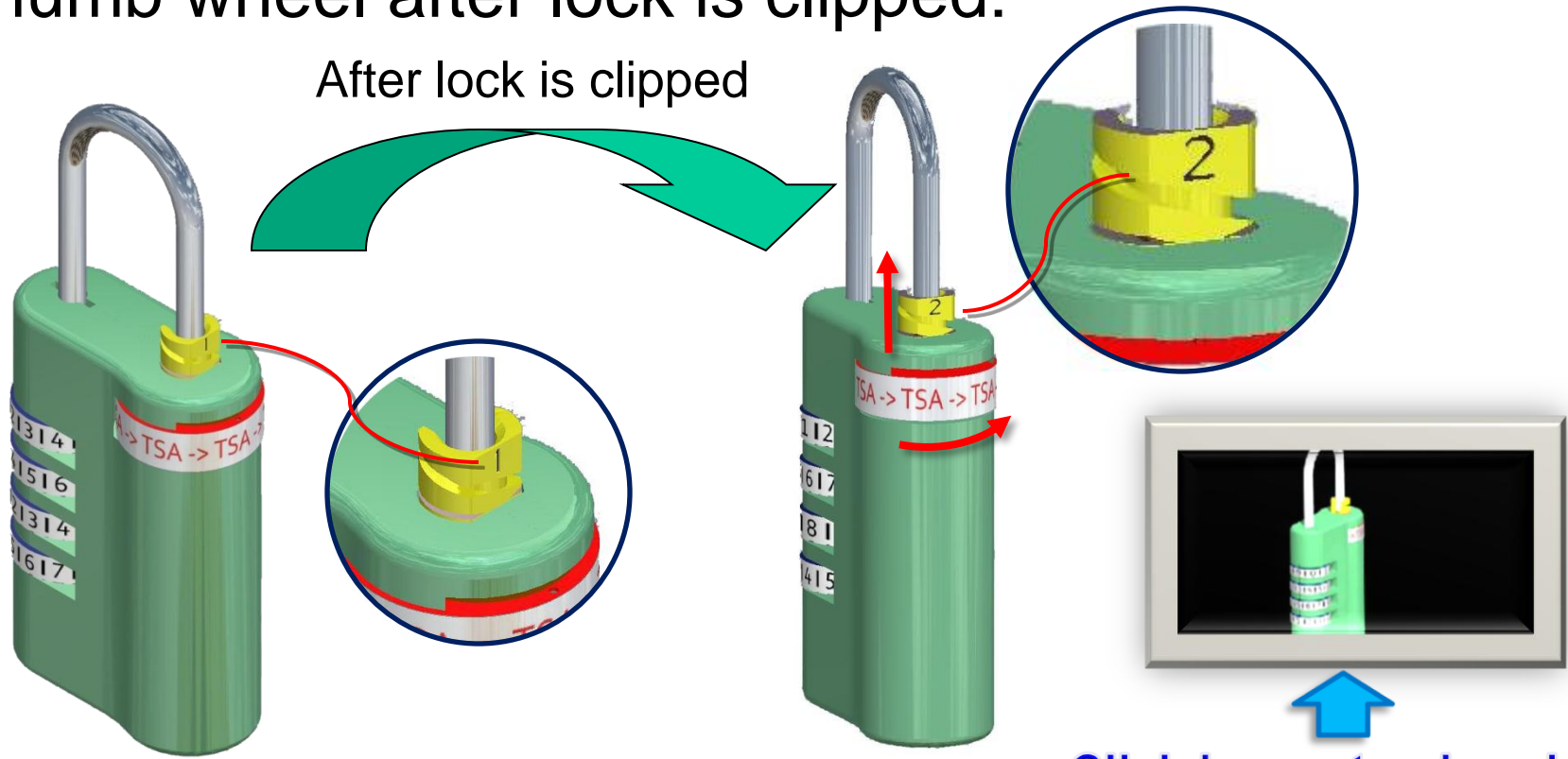


Advance New Cup

# SCI's Next Generation Lock:

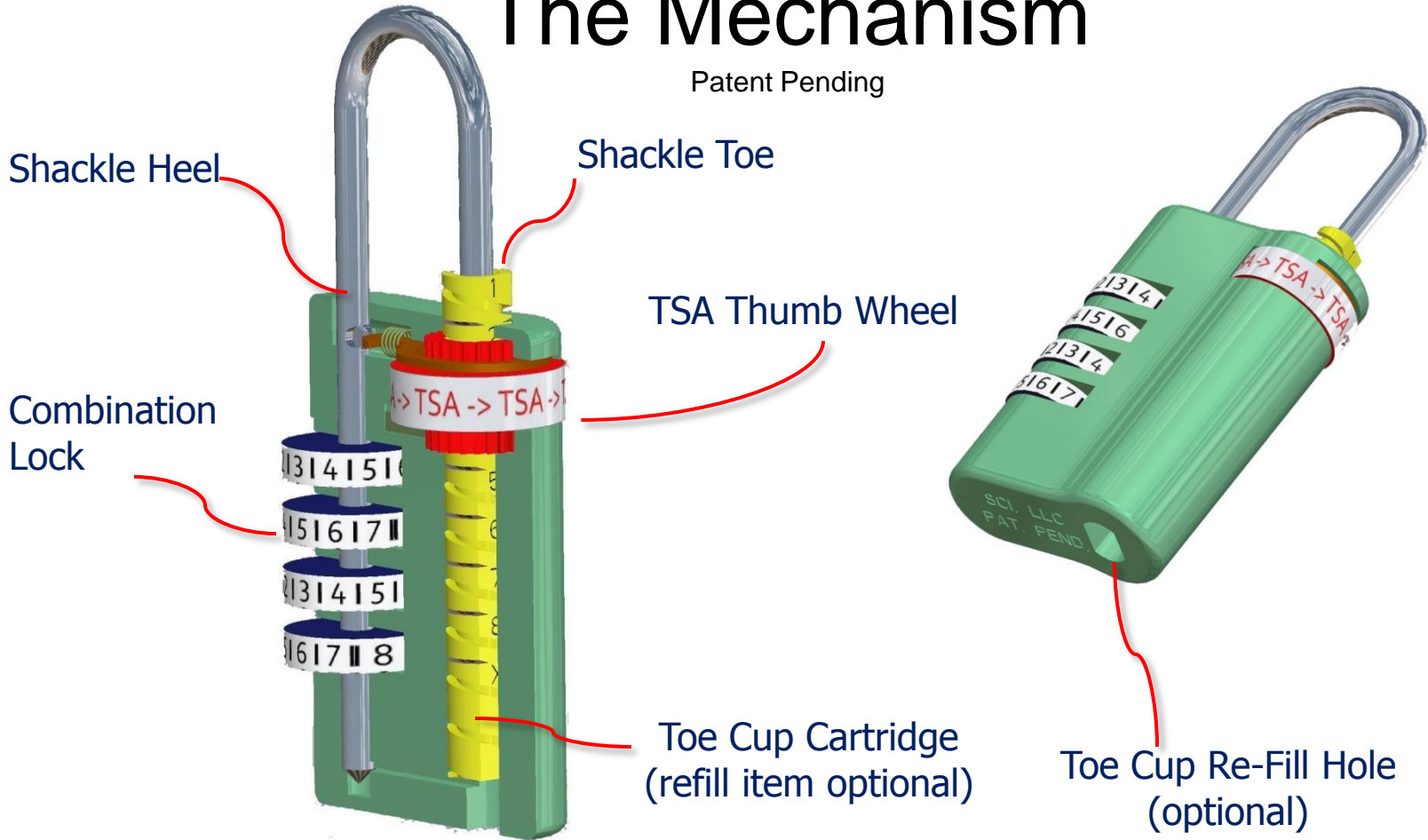
Patent Pending

How It Works: Sequenced cups advance by turning thumb wheel after lock is clipped:



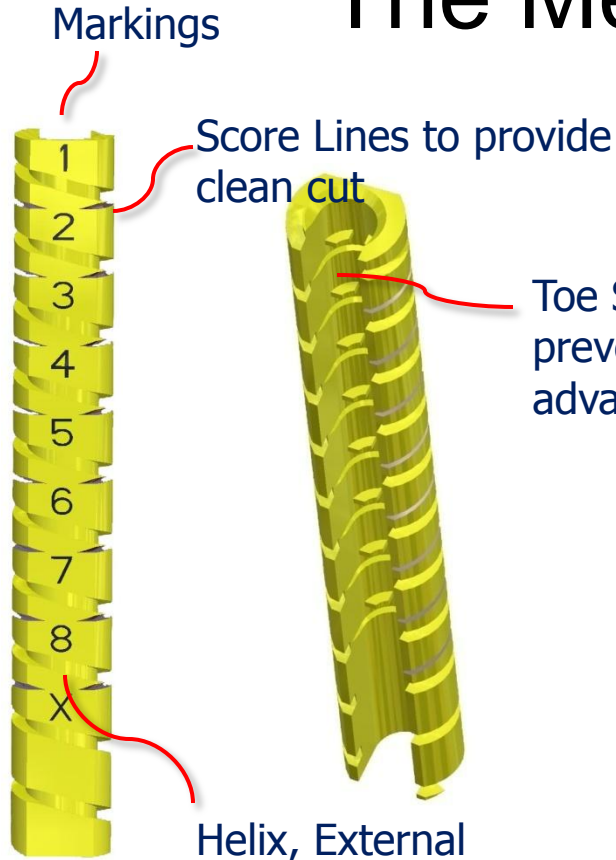
# The Mechanism

Patent Pending

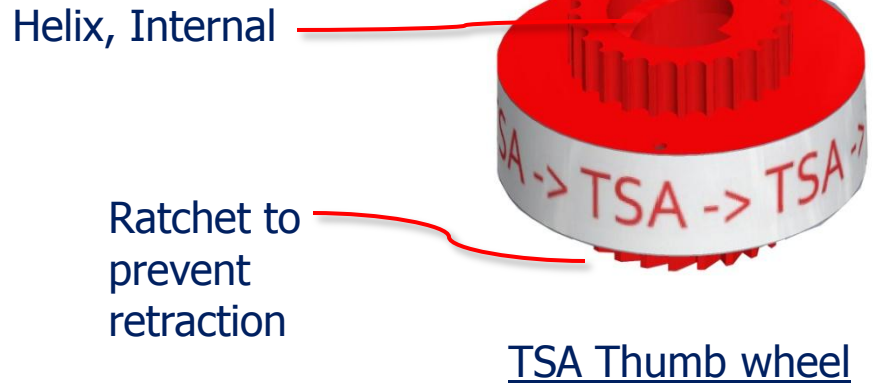
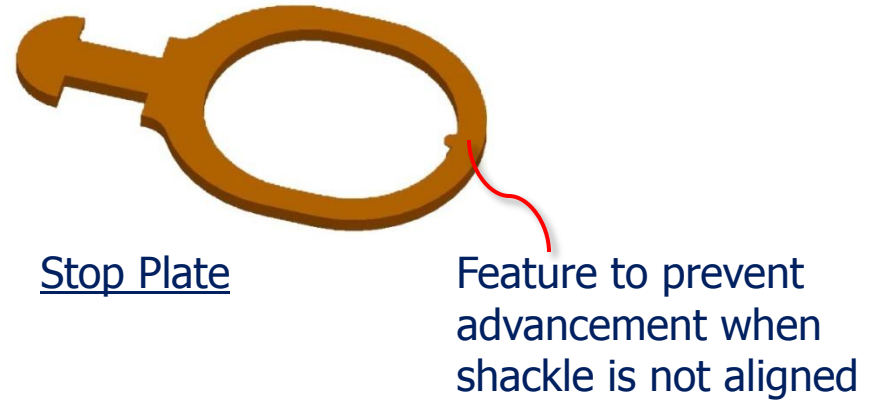


# The Mechanism cont.

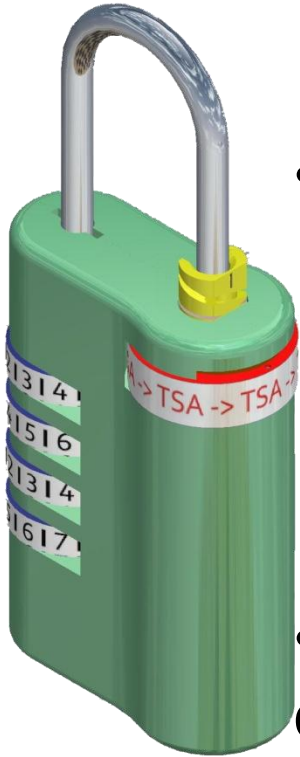
Patent Pending



Toe Cup Cartridge  
(consumable item  
metal or plastic)



# Summary



- Next Generation Luggage Lock
  - TSA Friendly
  - Easy and Inexpensive to Manufacture
  - Strong IP not limited by existing products/IP, claims have been allowed
  - Improved Security and Peace of Mind for Consumer
- SCI is a leading creative force in lock design and continues to generate new breakthrough ideas, present idea is merely one of many.

Patent Pending

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