

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA**

GUSHILL INDUSTRIES, INC.,
a California corporation,

Plaintiff,

vs.

Case No.: 8:19-cv-02770-SDM-AEP

PROVEN INDUSTRIES, INC., a Florida
corporation, RONALD JAMES LEE II,
an Individual, and DOES 1-20,

Defendants.

FIRST AMENDED COMPLAINT FOR DAMAGES
DEMAND FOR JURY TRIAL

Plaintiff GusHill Industries, Inc., a California corporation, hereby files its First Amended Complaint for Damages against defendants Proven Industries, Inc., a Florida Corporation, Ronald James Lee II, an individual, and DOES 1-20 and alleges:

NATURE OF ACTION

1. This is action for patent infringement under the United States Patent Law, 35 U.S.C. § 271, *et. seq.*

PARTIES

2. Plaintiff GusHill Industries, Inc. (“GusHill”) is a corporation organized and existing under the laws of the State of California, with its principal place of business at 2511 Carson Way, Sacramento, CA 95821.

3. GusHill is a corporation engaged in the manufacture, sale, and marketing of trailer hitch locks in the United States.

4. On information and belief, defendant Proven Industries, Inc. (“Proven Industries”) is a company organized and existing under the laws of the State of Florida, with its principal place of business at 2225 S Dock Street, Tampa, FL 34221.

5. On information and belief, defendant Ronald James Lee II (“Ronald Lee”) is an individual residing in Apollo Beach, County of Hillsborough, Florida.

6. On information and belief, Defendant Ronald Lee is and has been an officer, director, principal, shareholder, and employee of Proven Industries.

7. On information and belief, Defendant Ronald Lee controls, operates, and is responsible for the day-to-day operations of Proven Industries, including its infringing activities.

8. On information and belief, Defendant Ronald Lee stands to directly benefit from his own as well as Proven Industries’ infringing activities.

9. GusHill does not know the true names and capacities of those defendants sued as DOES 1-20 (the “Doe Defendants”) and therefore sue them under fictitious names. On information and belief, the Doe Defendants have participated in the scheme at issue in this Complaint, including by directing, aiding, and/or assisting the named Defendants in connection with the infringing acts alleged herein. GusHill is unable to identify all such Doe Defendants by name because Defendants have obscured the identity of the specific individuals and entities that have directed or otherwise participated in the infringing acts. GusHill will amend this Complaint to allege the true names and capacities of these Doe Defendants when they are ascertained.

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JURISDICTION AND VENUE

10. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

11. Venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant Proven Industries is a corporation subject to personal jurisdiction in this District and is therefore deemed to reside in this District under 28 U.S.C. § 1391(c). Venue is also proper in this District under 28 U.S.C. § 1391(b) because, upon information and belief, Proven Industries has transacted significant business in this District, and committed and/or induced acts of patent infringement giving rise to this suit in this District, including by the sale of infringing products here.

12. Venue is proper over Ronald Lee in this District in that the venue provisions for an infringing corporation, such as Proven Industries, which are set forth in 28 U.S.C. §§ 1391 and 1400, apply equally to corporate employees, officers, directors, owners, and/or principals who direct and control the infringing conduct of a corporation.

13. The Court has personal jurisdiction over Proven Industries because it has maintained certain minimum contacts with the State of Florida such that the exercise of jurisdiction over Proven Industries would not offend traditional notions of fair play and substantial justice. As alleged herein, Proven Industries has transacted significant business and committed and/or induced acts of patent infringement giving rise to this suit in this State.

14. The Court has personal jurisdiction over Defendant Ronald Lee because

during relevant periods of infringement, Ronald Lee: (1) operated, conducted, engaged in, or carried on a business or business venture in the State of Florida; (2) committed tortious acts of direct and indirect infringement within the State of Florida; (3) committed tortious acts of direct and indirect infringement causing injury within the State of Florida; (4) is or was the energy and mastermind behind Proven Industries' infringing activities in the State of Florida, including actively and knowingly aiding and abetting Proven Industries' infringement; (5) has or had ultimate decision-making authority for, and control over, the importing, design, manufacture, sale, and offers for sale of infringing products; and/or (6) owns property within the State of Florida.

15. Defendant Ronald Lee had knowledge that Plaintiff asserted claims of patent infringement against the products he was responsible for designing, manufacturing, selling and offering to sell in this district.

16. Upon information and belief, Ronald Lee is responsible for Proven Industries' sales and offers for sale of infringing products in the State of Florida and throughout the United States, including but not limited to, direct sales, as well as indirect sales.

PLAINTIFF AND ITS PATENT RIGHTS

17. GusHill was the exclusive licensee of United States Patent No. 6,244,614 (the "'614 Patent") entitled "Trailer Hitch Lock," which was valid and expired on November 3, 2019. The '614 Patent issued on June 12, 2001. A true and correct copy of the '614 Patent is attached hereto as Exhibit A.

18. In 1999, Gary J. Bonvillain and Herbert P. Stanley conceived of a unique

and innovative device used for securing trailer hitch locks. The device secures a trailer hitch's lock to prevent the removal or tampering of the lock by thieves. This device features a plate attached to a ball to be secured in the ball socket of the hitch. A housing shaped to enclose the exposed end of the hitch tongue is slipped over the plate. A tang comprising an eye, extends from the plate and protrudes into a recess on the housing. A lock is inserted into the recess and actuated with a key to insert the bolt through the eye. With the key removed and the lock imbedded in the recess, no part of the security system is accessible to tampering.

19. On or about November 3, 1999, Gary J. Bonvillain and Herbert P. Stanley filed the utility patent application entitled "Trailer Hitch Lock" from which the '614 Patent would issue.

20. Gary J. Bonvillain and Herbert P. Stanley were the inventors of the '614 Patent.

21. Gary J. Bonvillain and Herbert P. Stanley initially granted GusHill the exclusive license to practice and enforce the '614 Patent and later assigned GusHill the '614 Patent.

22. On or about September 27, 2016, Gary J. Bonvillain and Herbert P. Stanley assigned the '614 Patent to GusHill.

23. GusHill is the owner of the '614 Patent.

24. GusHill has complied with the statutory requirement of placing a notice of the Letters Patent on the devices it manufactures and sells as required by 35 U.S.C. § 287.

25. GusHill is a corporation engaged in the manufacture, sale, and marketing of trailer hitch locks in the United States.

26. Some of GusHill's most popular products are the Bull and the Shield trailer hitch locks, both of which practice the '614 Patent.

27. GusHill markets its products nationwide, including through online marketing via its website <<https://www.gushill.com>>. Copies of product information pages for GusHill's Bull and Shield trailer hitch locks products are attached hereto as Exhibits B and C.

28. Proven Industries also manufactures, markets, offers, distributes, and sells trailer hitch locks.

29. Among the products manufactured and sold by Proven Industries are trailer hitch locks marketed under the brand Proven Industries which practice the '614 Patent, and further are substantially similar, and in fact nearly identical, to GusHill's trailer hitch locks.

30. On or about February 21, 2019, GusHill sent Defendants written correspondence informing Defendants of their infringing products and activities and demanding that Proven Industries cease and desist the infringing conduct. Attached to this February 21, 2019 correspondence was a claim chart illustrating how at least one of the Accused Devices met each and every limitation of Claim 1, Claim 4, and Claim 7.

31. Between about March 2019 through about September 2019, the parties engaged in correspondence, both written and telephonic, in an effort to resolve their disputes. During one telephonic conversation on or around April 24, 2019, Ronald Lee

informed GusHill's counsel that he had no intention to pay damages for infringement. Ronald Lee explained that this was because, in the event that GusHill pursued litigation, Defendants would default and Ronald Lee would "hit the reset button" on Proven Industries and dissolve the corporation. Ronald Lee further stated that after dissolving Proven Industries, he would open a new trailer hitch lock business wherein he would change the design of his products and manufacture those products differently so as to avoid infringement on the '614 Patent.

32. Despite Ronald Lee's representations that he had the ability to design around the '614 Patent, Defendants did not cease their infringing activities. Instead, Defendants continued to sell and offer to sell infringing products through Proven Industries without authority or license from Plaintiff.

33. On information and belief, Defendants participated and cooperated with each other in concert to make, market, advertise, promote, offer, provide, and sell the said infringing trailer hitch lock products, such that each is jointly and severally liable for the actions of the other in respect of the infringements alleged herein. Additionally, on information and belief, Defendants induced each other to commit the unlawful acts relating to infringement of the '614 Patent alleged herein, including without limitation by directing and instructing the other Defendants to make, market, advertise, promote, offer, provide, and sell the infringing trailer hitch lock products, including in the State of Florida, within this District, and elsewhere in the United States. Each Defendant is thus liable for the unlawful conduct of the Defendants described herein.

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FIRST CLAIM FOR RELIEF

DIRECT INFRINGEMENT (ALL DEFENDANTS)

34. GusHill restates all of the preceding paragraphs as if fully set forth herein.

35. Upon information and belief, Defendants have been and are now infringing at least Claim 1, Claim 4, and Claim 7 of the '614 Patent in the State of Florida, in this judicial district, and elsewhere in the United States in violation of 35 U.S.C. § 271(a) by, among other things, making, using, selling, or offering for sale trailer hitch locks, including without limitation, at least the following Proven Industries products:

- a. Model 2178: <https://www.provenlocks.com/products/model-2178>
- b. Model 2178-A: <https://www.provenlocks.com/products/model-2178-a>
- c. Model 2178-B: <https://www.provenlocks.com/products/model-2178-b>
- d. Model 2178-E: <https://www.provenlocks.com/products/model-2178-e>
- e. Model 2178-U: <https://www.provenlocks.com/products/model-2178-u>
- f. Model 2516: <https://www.provenlocks.com/products/model-2516>
- g. Model 2516-A: <https://www.provenlocks.com/products/model-2516-a>
- h. Model 2516-AS: <https://www.provenlocks.com/products/model-2516-as>
- i. Model 2516-B: <https://www.provenlocks.com/products/model-2516-b>
- j. Model 2516-B2: <https://www.provenlocks.com/products/model-2516-b2>
- k. Model 2516-E: <https://www.provenlocks.com/products/model-2516-e>

l. Model 2516-J: <https://www.provenlocks.com/products/model-2516-j>

m. Model 2517-B: https://www.provenlocks.com/products/2517-b_

These products are collectively referred to herein as the “Accused Devices.”

36. A claim chart illustrating at least one of the Accused Devices, Model 2178-B, infringing at least Claim 1, Claim 4, and Claim 7 of the ‘614 Patent is attached hereto as Exhibit D.

37. On information and belief, the Exhibit D Claim Chart describes and demonstrates how each of the Accused Devices infringe the ‘614 Patent, literally and/or under the Doctrine of Equivalents.

38. Specifically, each of the Accused Devices at the very least includes: a trailer anti-theft locking apparatus comprising of a) a ball for insertion into the socket of the trailer hitch, the ball having a base plate attached thereto, the base plate having a tang projecting therefrom whereby the tang has a lock engaging surface thereon; b) a housing with an open end to receive said trailer hitch and said base plate, the housing having a hole in an opposite end to receive said tang, the hole opening into a tubular extension extending a selected distance from said opposite end; and c) a lock to be received into said tubular extension, having key operated means to releasably engage and secure said lock engaging surface, covered by Claim 1 of the ‘614 Patent, to the injury of GusHill. Defendants are directly infringing the ‘614 Patent pursuant to 35 U.S.C. § 271(a).

39. Further, each of the Accused Devices also at the very least includes: a trailer anti-theft locking apparatus comprising of a) a ball for insertion into a socket of a

trailer hitch, the ball having a base plate attached thereto, the base plate having a tang projecting therefrom whereby the tang has a transverse hole therein; b) a housing with an open end to receive said trailer hitch and said base plate, the housing having a hole in an opposite end to receive said tang, the hole opening into a tubular extension extending a selected distance from said opposite end; and c) a lock to be received into said tubular extension, having a key operated transversely movable shot bolt to retractably extend into said transverse hole, covered by Claim 4 of the '614 Patent, to the injury of GusHill. Defendants are directly infringing the '614 Patent pursuant to 35 U.S.C. § 271(a).

40. Even further, each of the Accused Devices also at the very least includes: anti-theft trailer hitch lock for a ball and socket type trailer tongue, comprising: a ball for insertion into said socket, the ball having a base plate attached thereto, an open ended box housing with a longitudinal dimension for enclosing said base plate and an exposed end of said tongue, said housing having a closed end with an opening therein, the opening extending into the bore of a tubular extension attached to and projecting some distance from said housing, the tubular extension adapted to receive a key operated lock, a tang attached to said base plate, the tang extending through said opening and having a transverse hole therein to receive a retractable key actuated shot bolt movably attached to said lock, covered by Claim 7 of the '614 Patent, to the injury of GusHill. Defendants are directly infringing the '614 Patent pursuant to 35 U.S.C. § 271(a).

41. As the president and only director of Proven Industries, defendant Ronald Lee is responsible for Proven Industries' day-to-day operations, including the promotion and sale of the Accused Devices.

42. Defendant Ronald Lee organized Proven Industries and made the decision that Proven Industries would begin manufacturing the Accused Devices. He directed and controlled the design, manufacture and sale of the Accused Devices, was responsible for the Accused Devices product launches, and was primarily responsible for Proven Industries' infringing activities.

43. Defendant Ronald Lee was aware of the '614 Patent and the infringing activities since at least on or about February 21, 2019, when GusHill's counsel sent Proven Industries a formal notice with a claim chart illustrating how the Accused Devices met each and every limitation of Claim 1, Claim 4, and Claim 7, and demanded that Proven Industries cease and desist the infringing conduct.

44. Ronald Lee was not only aware of the existence of the '614 Patent, but he continued to promote the sales of the Accused Devices despite his knowledge that such sales infringed the '614 Patent.

45. Since at least February 21, 2019, Ronald Lee possessed the specific intent to encourage Proven Industries' Accused Devices to infringe on the '614 Patent. This is evidenced, in part, by Ronald Lee's statements that he had the ability to change the design of the Accused Devices and manufacture those products differently to design around GusHill's patents, as well as the control and authority to dissolve Proven Industries. In spite of these representations, and in spite of his standing and control within Proven Industries, Ronald Lee continued to direct Proven Industries to manufacture and sell the Accused Devices.

46. Proven Industries is engaged in the same type of business as, and is a

competitor of, GusHill. Both GusHill and Proven Industries are engaged in the manufacture, sale, and marketing of trailer hitch locks in the United States.

47. Both Proven Industries and GusHill market and sell trailer hitch locks through the same or similar channels of commerce.

48. GusHill and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law.

49. GusHill has been damaged as a result of the infringing conduct by Defendants as alleged herein. Thus, Defendants are liable to GusHill in an amount that adequately compensates GusHill for such infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

50. Defendants willfully and knowingly infringed by manufacturing, selling, and marketing trailer hitch locks in the United States, despite notice of the '614 Patent. Defendants willfully and knowingly infringed the '614 Patent by advising and counseling their customers regarding the use and sale of infringing products. Pursuant to 35 U.S.C. § 284, GusHill is entitled to damages for Defendants' infringing acts and treble damages together with interests and costs as fixed by this Court.

51. Pursuant to 35 U.S.C. § 285, GusHill is entitled to reasonable attorneys' fees for the necessity of bringing this claim.

SECOND CLAIM FOR RELIEF

INDUCED INFRINGEMENT (ALL DEFENDANTS)

52. GusHill restates all of the preceding paragraphs as if fully set forth herein.

53. On information and belief, Defendants induced others to infringe one or more claims of the '614 Patent in violation of 35 U.S.C. § 271(b). Defendants induced infringement by their distributors, retailers, and customers who are selling, using, importing, exporting, providing, supplying, distributing, and/or offering the Accused Devices, which directly infringe upon the '614 Patent, as alleged above. On information and belief, Defendants encouraged the infringing conduct of their distributors and retailers with knowledge and in disregard of the '614 Patent, and with intent that the intellectual property rights of GusHill be infringed.

54. Defendant Ronald Lee was aware of the '614 Patent and the infringing activities since at least on or about February 21, 2019, when GusHill's counsel sent Proven Industries a formal notice with a claim chart illustrating how at least one of the Accused Devices met each and every limitation of Claim 1, Claim 4, and Claim 7 and demanded that Proven Industries cease and desist the infringing conduct.

55. Defendant Ronald Lee's actions induced infringing conduct, and he had the specific intent to induce actual infringement because he had notice of the '614 Patent and disregarded the formal notice illustrating how at least one of the Accused Devices met each and every limitation of Claim 1, Claim 4, and Claim 7.

56. Defendant Ronald Lee instructed, promoted, and advertised the infringing use of the Accused Devices on Proven Industries' website and other media sites.

57. Defendant Ronald Lee directed and encouraged Proven Industries' infringing activities such as selling and offering for sell the Accused Devices even after

knowing that the Accused Devices infringed the '614 Patent. Further, Ronald Lee helped Proven Industries make and/or manufacture of the Accused Devices, and he had control, and admitted to having control control, over Proven Industries' make and/or manufacture of the Accused Devices.

58. Defendants' actions with respect to the '614 Patent is without authority or license from GusHill.

59. The inducement to infringement by Defendants was intentional, deliberate, and willful.

60. As a proximate result of Defendants' contributory actions infringing upon the '614 Patent, GusHill has been damaged. GusHill is further entitled to collect pre-filing damages for the full period allowed by law.

61. Defendants willfully and knowingly infringed the '614 Patent by advising and counseling their customers regarding the use and sale of infringing products. Pursuant to 35 U.S.C. § 284, GusHill is entitled to damages for Defendants' infringing acts and treble damages together with interests and costs as fixed by this Court.

62. Pursuant to 35 U.S.C. § 285, GusHill is entitled to reasonable attorneys' fees for the necessity of bringing this claim.

PRAYER FOR RELIEF

WHEREFORE, GusHill prays for relief as follows:

- A. For a judgment in favor of GusHill that Defendants have infringed the '614 Patent;
- B. For a judgment and order requiring that Defendants pay to GusHill its

damages, costs, expenses, and pre-judgment and post-judgment interest for Defendants' infringement of the '614 Patent as provided under 35 U.S.C. § 284;

C. For a judgment and finding that Defendants' infringement and inducement to infringement are intentional and willful and that this is an exceptional case, and awarding treble damages, reasonable attorneys' fees, and costs to GusHill as permitted by 35 U.S.C. §§ 284-285;

D. For an order and judgment sustaining each of the causes of actions set forth herein against Defendants, and requiring Defendants to pay all damages and monetary relief as allowed under law or as may be sought by GusHill according to proof at trial; and

E. For any and all other relief as the Court deems just and reasonable.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, GusHill hereby demands a trial by jury on all issues raised by the First Amended Complaint.

Dated: December 26, 2019

Respectfully Submitted,

/s/ Leila N. Sockolov

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Exhibit A

(12) **United States Patent**
Bonvillain et al.

(10) **Patent No.: US 6,244,614 B1**
(45) **Date of Patent: Jun. 12, 2001**

(54) **TRAILER HITCH LOCK**

(76) Inventors: **Gary J Bonvillain**, 126 Bernard St.,
Patterson, LA (US) 70392; **Herbert P**
Stanley, 1012 Fig St., Morgan City, LA
(US) 70380

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/433,182**

(22) Filed: **Nov. 3, 1999**

(51) Int. Cl.⁷ **B60D 1/58**

(52) U.S. Cl. **280/507; 70/58; 70/DIG. 27**

(58) Field of Search **280/507, 511;**
70/58, 258, 57, 14, DIG. 27

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,032,171 * 6/1977 Allen et al. 280/507
4,141,569 * 2/1979 Dilk 280/507
4,291,557 9/1981 Bulle et al. .
4,459,832 * 7/1984 Avrea et al. 280/507 X
4,571,964 2/1986 Bratzler .
5,087,064 * 2/1992 Guhlin 280/511 X
5,147,096 * 9/1992 Rogers 280/507

5,322,316 * 6/1994 Wheeler 280/511 X
5,700,024 * 12/1997 Upchurch 280/507
5,752,398 5/1998 Villalon, Jr. .
5,775,139 * 7/1998 Sellers 280/507 X
5,794,961 * 8/1998 Niswanger 280/507
5,873,271 * 2/1999 Smith 70/58
5,937,679 8/1999 Villalon, Jr. .
6,070,441 * 6/2000 Bernstrom 280/507 X

* cited by examiner

Primary Examiner—J. J. Swann

Assistant Examiner—F. Zeender

(74) *Attorney, Agent, or Firm—John D. Jeter*

(57) **ABSTRACT**

A ball fastened to a base plate is received within the socket of a trailer hitch, with a box shaped, open ended housing slipped over the exposed end of the tongue, hitch, and plate. The plate has a pierced tang that extends through the closed end of the housing and into a tubular extension projecting from the housing. A purchase item cylindrical, keyed, tumbler operated, lock slips into the bore of the extension and projects a key operated, retractable, transversely movable, shot bolt through the pierced hole of the tang. The lock is protected within the extension, and the apparatus has no parts exposed for tampering.

9 Claims, 1 Drawing Sheet

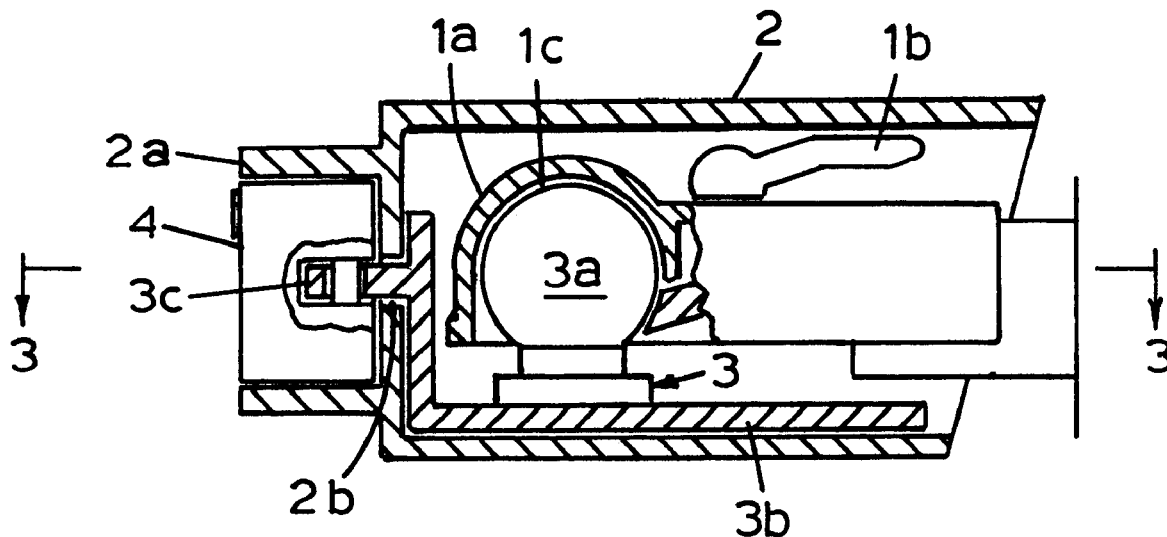


FIG. 1

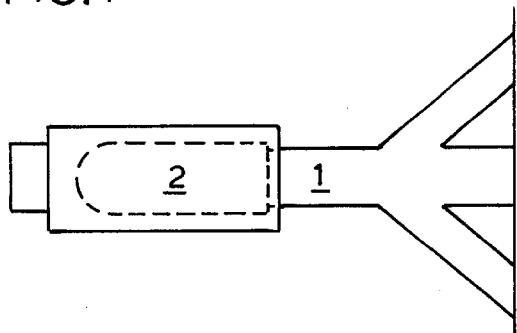


FIG. 2

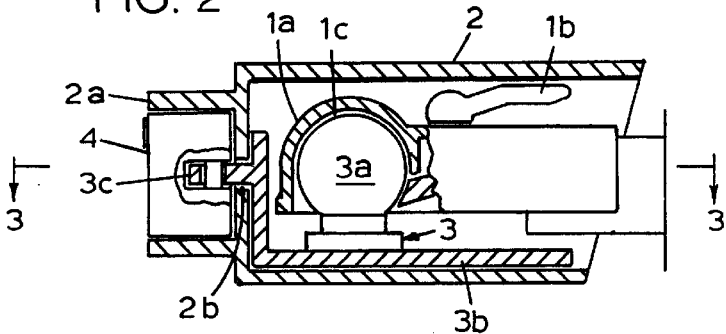


FIG. 4

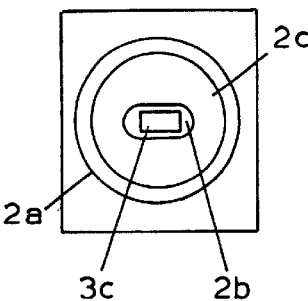


FIG. 3

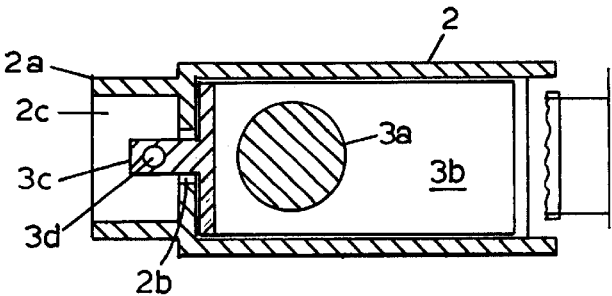
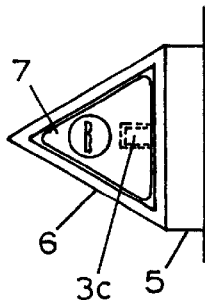


FIG. 5



US 6,244,614 B1

1

TRAILER HITCH LOCK**BACKGROUND**

Trailers such as boat trailers are often left unattended in remote locations. As a consequence they are often stolen, and often locking devices in place are cut away. Locking devices in use are usually apparatus that occupies the hitch socket and have shrouds, that prevent their removal, secured by padlocks. With simple prior preparation, modern tools can cut the lock bolt rather quickly. Unless the hitch lock is apparently secure against violation, efforts to remove it can disable the lock, rendering the trailer temporarily useless to the legitimate user.

SUMMARY OF INVENTION

A plate is welded to a ball to be secured in the ball socket of the hitch. A box-like shroud, shaped to enclose the exposed end of the hitch tongue is then slipped over the plate. A tang, with a transverse eye, extending from the plate protrudes into a cylindrical recess on the box. A tumbler type lock with a shot bolt that is movable with a key in the tumbler is inserted into the recess and actuated with the key to insert the bolt through the eye. With the key removed and the lock imbedded in the recess no part of the security system is accessible to the known available lock cutting tools. A combination lock can replace the keyed tumbler lock.

BRIEF DESCRIPTION OF DRAWINGS

In the drawings wherein like features have similar captions, FIG. 1 is a top elevation of a typical trailer hitch with the preferred embodiment installed.

FIG. 2 is a side view of the arrangement of FIG. 1, somewhat enlarged and partly cut away.

FIG. 3 is a top view of the arrangement of FIG. 2 with the top of part of the lock enclosure cut away.

FIG. 4 is an end view of the arrangement of FIG. 1.

FIG. 5 is a partial side view, from the aspect of FIG. 2, of an alternate form of the invention.

DETAILED DESCRIPTION OF DRAWINGS

In the drawings, features well established in the art and not bearing upon points of novelty are omitted in interest of descriptive clarity. Such omitted features include weld lines and threaded junctures, and the like.

FIG. 1 shows a typical trailer hitch tongue 1 with the housing 2 of the lock apparatus in place.

FIG. 2 shows tongue 1 with a typical coupler in place with a socket assembly 1a for ball receiving socket 1c and the usual securing lever 1b. Lower portion 3 has ball 3a attached to a bent plate 3b. Plate 3b has tang 3c extending through hole 2b. Housing 2 is an open ended box structure that receives and encloses the hitch socket assembly 1a and plate 3b. Tubular extension 2a has a cylindrical bore that receives a purchase item tumbler lock 4. The shape of the bore is defined by the shape of the lock assembly to be accommodated. Lock 4 has an opening that accepts tang 3c. Tang 3c has a vertical hole 3d. The lock 4 has a shot bolt that is actuated by the keyed tumbler (not shown) to extend into the vertical hole. Lock 4 is secured in the recess when the shot bolt is in the vertical hole of the tang. It is also secured by a set screw (not shown) to keep the lock in place when the apparatus is removed from the hitch. The set screw is not essential to the lock security when the apparatus is in service and it is often omitted.

2

FIG. 3 is a top view with the housing cut along line 3—3 as FIG. 2. This view shows the vertical hole 3d, ball 3a, and plate 3b but the terminal end (socket assembly) 1a of the trailer tongue is absent.

FIG. 4 is a front view showing the tubular extension 2a with the lock 4 omitted. The preferred lock is a purchase item sold as the American Lock Companies Series 2000. Other recess fitting locks of the type shown may be available, and usable.

Lock 4 could be made with the direction of installation situated perpendicular to that shown. The opening for the tang would extend into the side of a purchasable lock assembly. The tubular opening 2c, circular or otherwise, would then be perpendicular to that shown. That is anticipated by and is within the scope of the claims.

FIG. 5 is a view from the same aspect as FIG. 2, of somewhat smaller scale, showing the transverse slideway in tube 6 for keyed tumbler lock mechanism 7. Note the non-circular nature of the slideway. Lock 7 is not known to be currently available but, when available, the slideway configuration can be selected to fit. Tang 3c is shown unchanged but can also be shaped to fit the requirements of the lock. The tang could have a lock engagement notch rather than a hole for the lock shot bolt.

From the foregoing, it will be seen that this invention is one well adapted to attain all of the ends and objects hereinabove set forth, together with other advantages which are obvious and which are inherent to the apparatus.

It will be understood that certain features and sub-combinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claims.

As many possible embodiments may be made of the apparatus of this invention without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A trailer anti-theft locking apparatus to secure the tongue of a trailer hitch having a hitch ball receiving socket, the apparatus comprising:

- a) a ball for insertion into the socket of the trailer hitch, the ball having a base plate attached thereto, the base plate having a tang projecting therefrom whereby the tang has a lock engaging surface thereon;
- b) a housing with an open end to receive said trailer hitch and said base plate, the housing having a hole in an opposite end to receive said tang, the hole opening into a tubular extension extending a selected distance from said opposite end; and
- c) a lock to be received into said tubular extension, having key operated means to releasably engage and secure said lock engaging surface.

2. The apparatus of claim 1 wherein said lock is a purchase item.

3. The apparatus of claim 2 wherein said lock is a combination lock and said key is a combination of characters.

4. A trailer anti-theft locking apparatus comprising:

- a) a ball for insertion into a socket of a trailer hitch, the ball having a base plate attached thereto, the base plate having a tang projecting therefrom whereby the tang has a transverse hole therein;
- b) a housing with an open end to receive said trailer hitch and said base plate, the housing having a hole in an

US 6,244,614 B1

3

opposite end to receive said tang, the hole opening into a tubular extension extending a selected distance from said opposite end; and

c) a lock to be received into said tubular extension, having a key operated transversely movable shot bolt to retractably extend into said transverse hole.

5. The apparatus of claim 4 wherein said ball is welded to said base plate.

6. The apparatus of claim 4 wherein said base plate has a right angle bend to extend adjacent said ball to support said tang.

7. An anti-theft trailer hitch lock for a ball and socket type trailer tongue, comprising: a ball for insertion into said socket, the ball having a base plate attached thereto, an open ended box housing with a longitudinal dimension for enclosing said base plate and an exposed end of said tongue, said

4

housing having a closed end with an opening therein, the opening extending into the bore of a tubular extension attached to and projecting some distance from said housing, the tubular extension adapted to receive a key operated lock, a tang attached to said base plate, the tang extending through said opening and having a transverse hole therein to receive a retractable key actuated shot bolt movably attached to said lock.

8. The apparatus of claim 7 wherein said tubular extension has an extended centerline that is generally parallel to said longitudinal dimension.

9. The apparatus of claim 7 wherein said tubular extension has a bore centerline that is generally perpendicular to said longitudinal dimension.

* * * * *

Exhibit B

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The Bull

Starting at \$199

Please review our [Lock Fit Guide](#) to confirm that this lock will fit your trailer hitch. If you are unsure, or have questions, please call (209-304-0000) or [submit a request](#).

SIZE Choose an option ☐

COLOR Choose an option ☐

Bull Lock Options

Keyed alike options are available. Please call.

LOCK SELECTION *

Pacific Lock

The series 400 Pacific "hockey-puck" style lock is made of hardened, solid steel. There are no seams to break or rivets to drill out. In addition, because of the hidden shackle, the lock cannot be cut.

EXTRA KEYS

0

COMBO TOTAL

\$0.00

1	+
	-

ADD TO CART

SKU: N/A Category: [Locks](#)

0 Shares

DESCRIPTION REVIEWS (0)

The [patented](#) Bull lock is designed to fit Bulldog® and other similar hitch models. Unlike other locks, the Bull protects the entire hitch—it fully encases the coupler making theft very difficult. The sleeve is made of 713 Tenzaloy Aluminum and the tongue is made of 4130 steel. The Bull is sold in two sizes (2" and 2 & 5/16") with 3 lock options.

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Related products



The Shield

Starting at \$199



The King

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Exhibit C

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The Shield

Starting at \$199

Please review our [Lock Fit Guide](#) to confirm that this lock will fit your trailer hitch. If you are unsure, or have questions, please call (209-304-0000) or [submit a request](#).

SIZE Choose an option ☐

COLOR Choose an option ☐

Shield Lock Options

Keyed alike options are available. Please call.

LOCK SELECTION *

Pacific Lock

The series 400 Pacific "hockey-puck" style lock is made of hardened, solid steel. There are no seams to break or rivets to drill out. In addition, because of the hidden shackle, the lock cannot be cut.

EXTRA KEYS

0

COMBO TOTAL

\$0.00

1	+
	-

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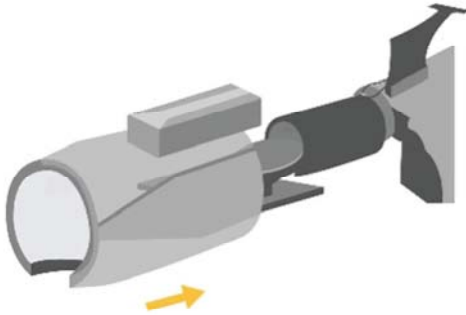
SKU: N/A Category: [Locks](#)

0 Shares

DESCRIPTION

The [patented](#) Shield lock is GusHill's latest innovation in trailer security. The Shield was designed to fit the majority of standard ball hitches. This lock is made of 713 Tenzaloy aluminum and uses the same 4130 steel ball and tang as the Bull. It is incredibly strong and is available in 2" or 2 & 5/16" ball sizes.

READY TO SHOP? USE PROMO CODE **GUSHILL5** FOR \$5 OFF YOUR PURCHASE NOW!

**THE SHIELD**[HOME](#)[SHOP](#)[ABOUT](#)[FAQS](#)[CONTACT](#)

Related products

**The Plug**[Starting at \\$159](#)**The King**[Starting at \\$199](#)**The Goose**[Starting at \\$199](#)**The Bull**[Starting at \\$199](#)

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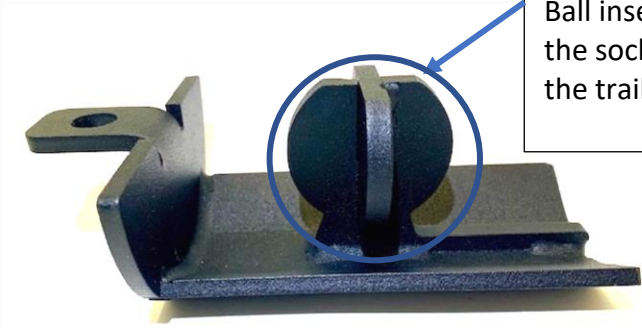
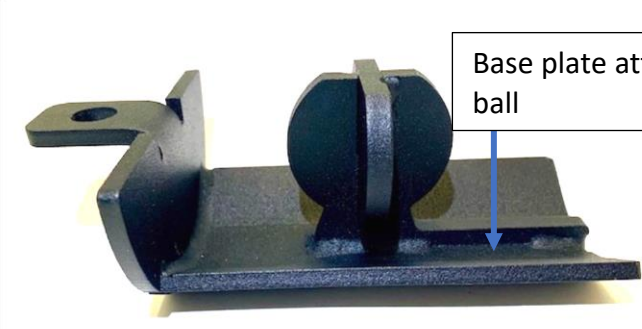
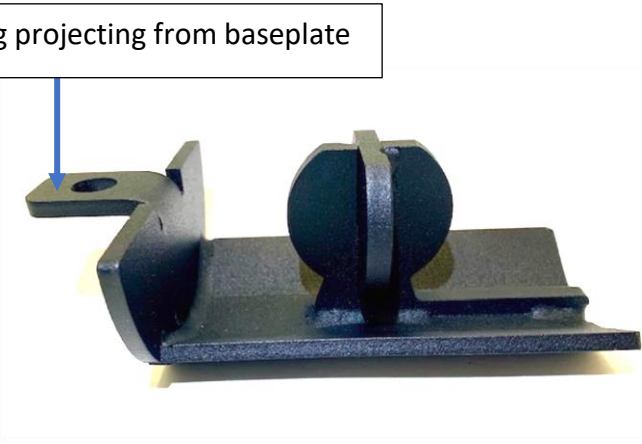
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Exhibit D

6,244,614 Patent	Proven Industries' Accused Product
<p>What is claimed is:</p> <p>1. A trailer anti-theft locking apparatus to secure the tongue of a trailer hitch having a hitch ball receiving socket, the apparatus comprising (a) a ball for insertion into the socket of the trailer hitch,</p>	<p>Figure 1: Ball for Insertion into the Socket of the Trailer Hitch</p>  <p>Ball inserts into the socket of the trailer hitch.</p>
<p>the ball having a base plate attached thereto,</p>	<p>Figure 2: Base Plate Attached to Ball</p>  <p>Base plate attached to ball</p>
<p>the base plate having a tang projecting therefrom</p>	<p>Figure 3: Tang Projecting from Base Plate</p>  <p>Tang projecting from baseplate</p>

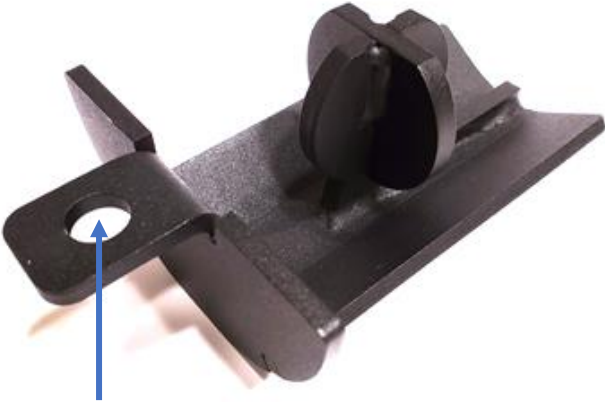

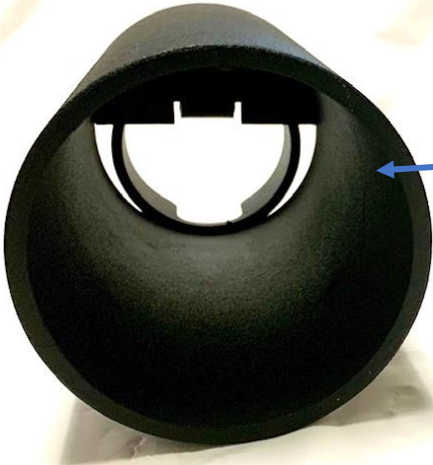
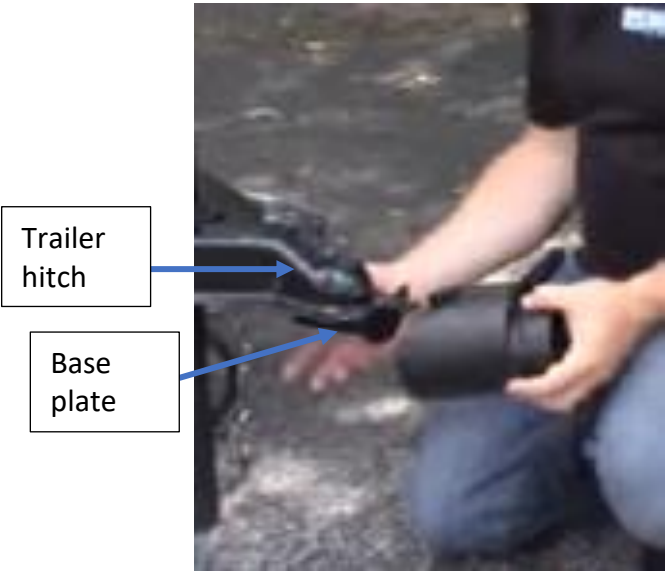
<p>whereby the tang has a lock engaging surface thereon;</p>	<p>Figure 4: Tang with Lock Engaging Surface</p>  <p>The lock engaging surface</p> <p>This figure shows a black metal tang component. It has a circular hole on the left side. A blue arrow points from a text box labeled 'The lock engaging surface' to the inner surface of this hole. The tang is mounted on a base plate with a circular lock mechanism on the right.</p>
<p>(b) a housing</p>	<p>Figure 5: Housing</p>  <p>Opposite end</p> <p>Open end</p> <p>This figure shows a black cylindrical housing. A blue arrow points from the text 'Opposite end' to the left end of the cylinder. Another blue arrow points from the text 'Open end' to the right end of the cylinder.</p>
<p>with an open end to receive said trailer hitch and said base plate,</p>	<p>Figure 6A: Open End of Housing</p>  <p>Open end</p> <p>This figure shows the open end of the housing. It is a black cylindrical component with a large circular opening. Inside the opening, there are two white rectangular slots. A blue arrow points from a text box labeled 'Open end' to the right side of the opening.</p>

Figure 6B: Open End of Housing Receiving Trailer Hitch and Base Plate



the housing having a hole in the opposite end to receive said tang,

Figure 7A: Housing Having a Hole in the Opposite End

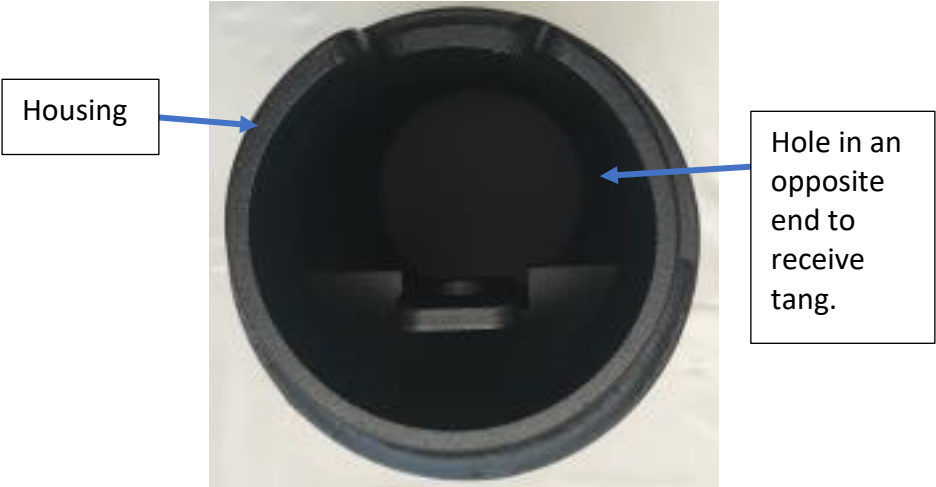
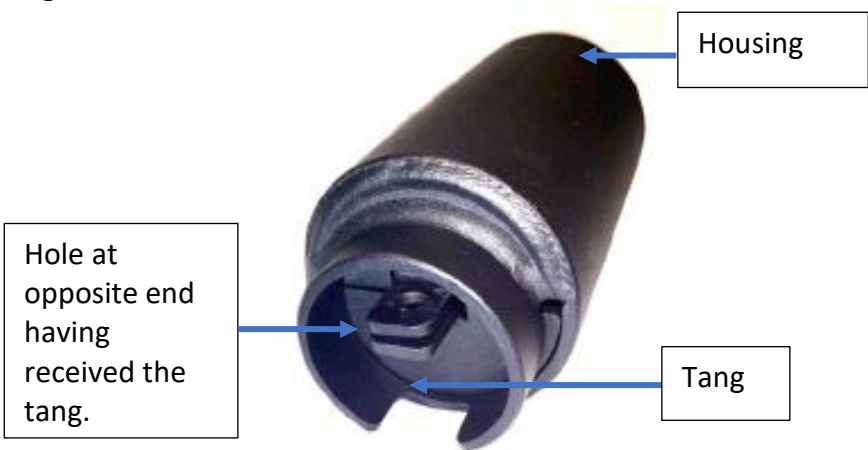
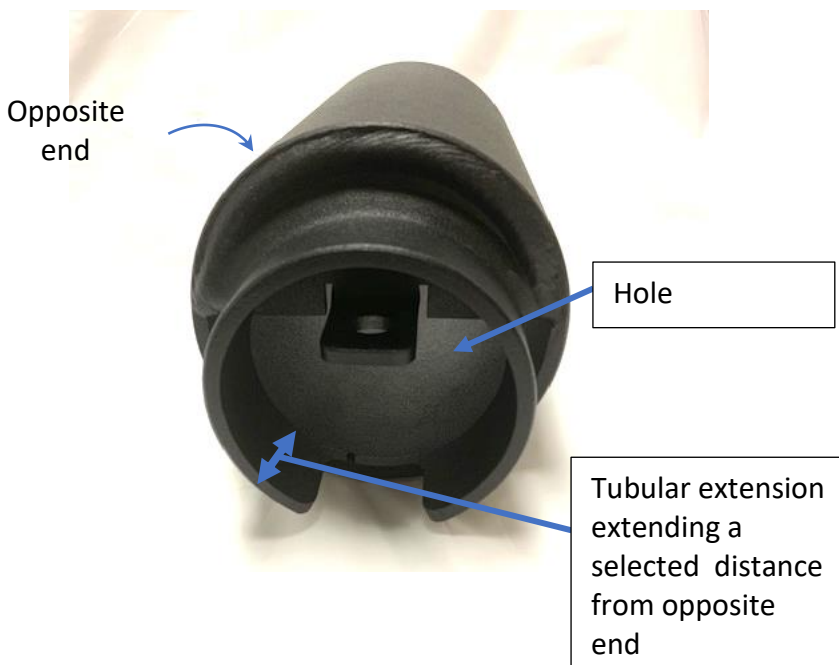


Figure 7B: Housing Having a Hole in the Opposite End to Receive Tang



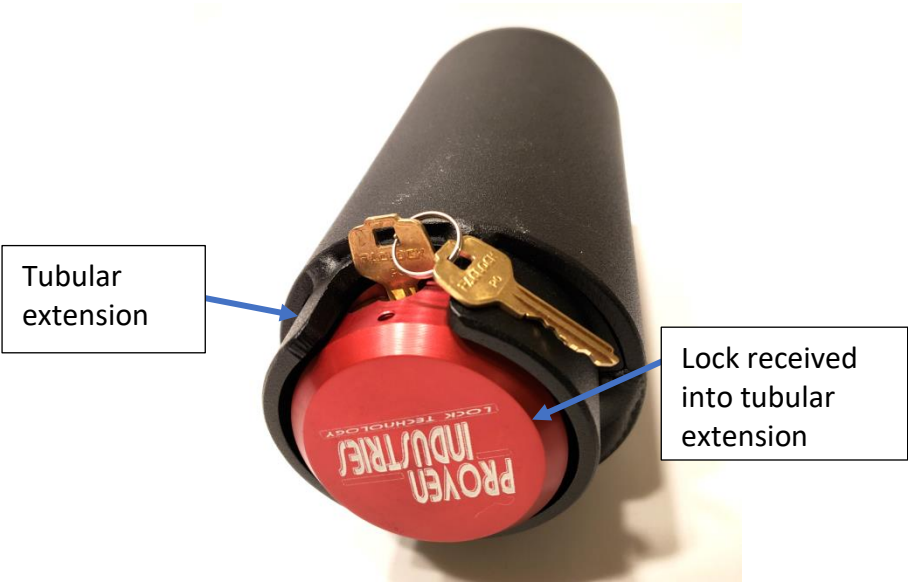
the hole opening into a tubular extension extending a selected distance from said opposite end; and

Figure 8: Tubular Extension



(c) a lock to be received into said tubular extension,

Figure 9: Lock in Tubular Extension



having key operated means to releasably engage and secure said lock engaging surface.

Figure 10A: Lock with Key



Figure 10B: Lock Engaging Surface

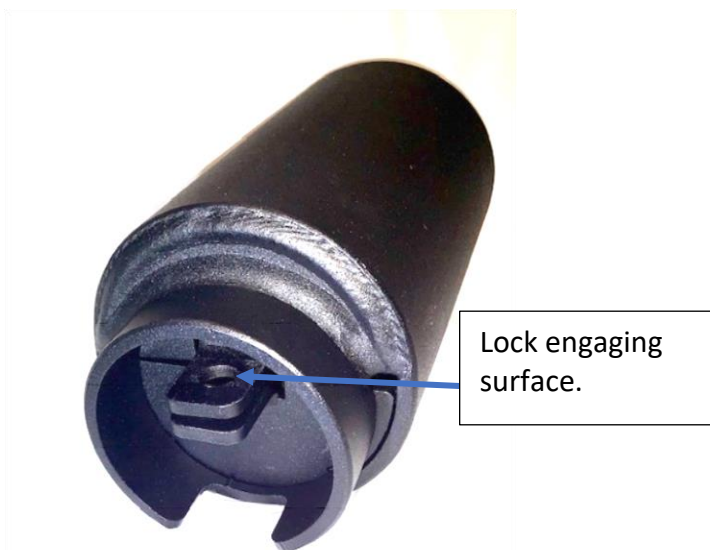
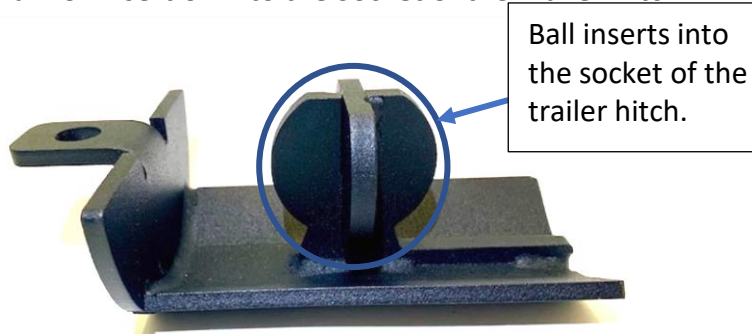


Figure 10C: Key Operated Means Releasably Engaging and Securing Lock Engaging Surface



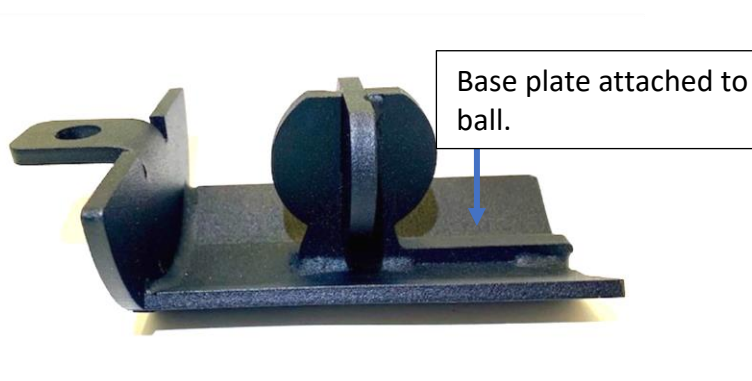
4. A trailer anti-theft locking apparatus comprising: (a) a ball for insertion into a socket of said trailer hitch,

Figure 11: Ball for Insertion into the Socket of the Trailer Hitch



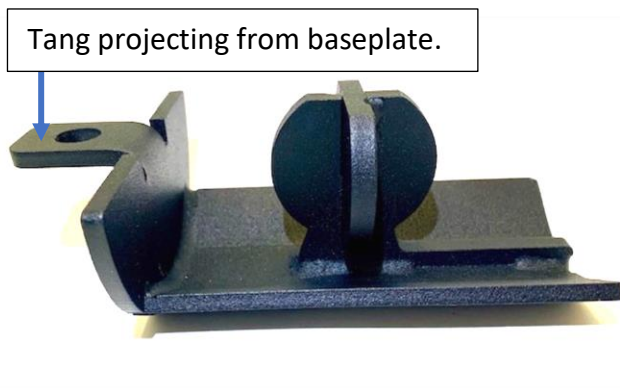
the ball having a base plate attached thereto,



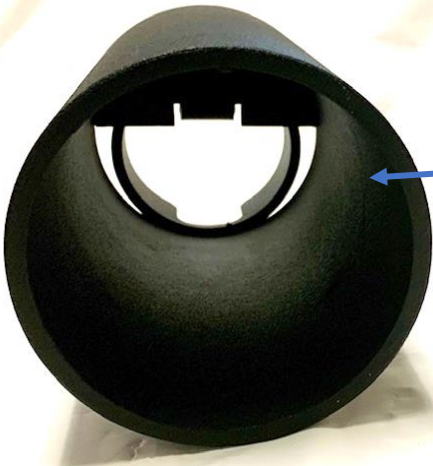
Figure 12: Base Plate Attached to Ball

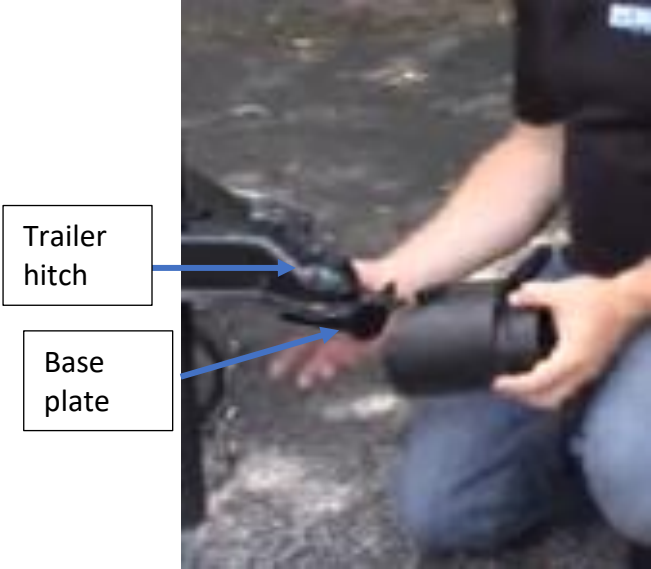
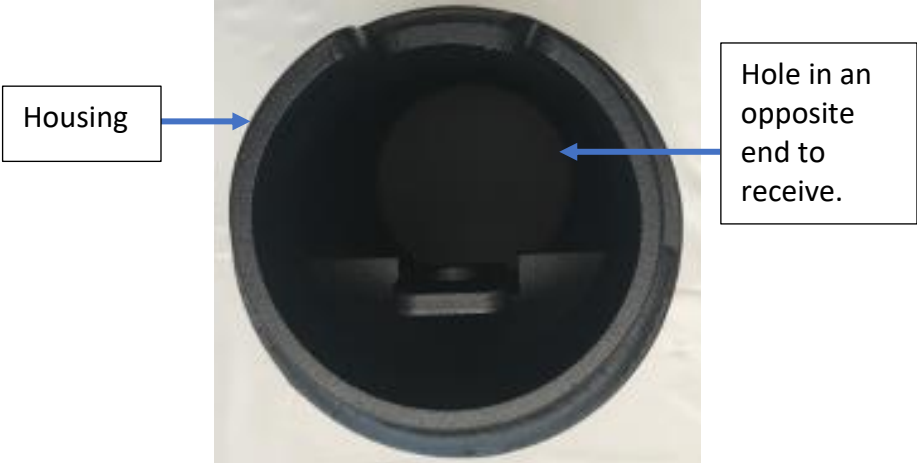
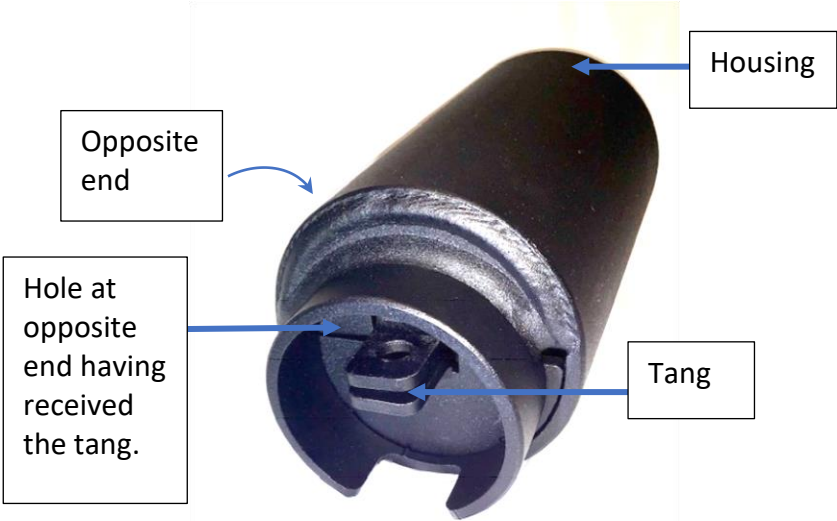


the base plate having a tang projecting therefrom

Figure 13: Tang Projecting from Base Plate

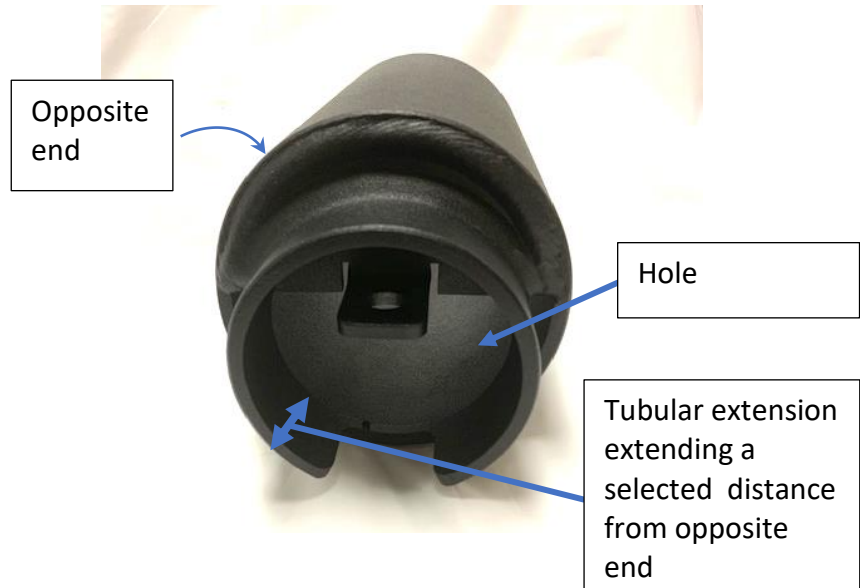


<p>whereby the tang has a transverse hole therein;</p>	<p>Figure 14: Tang with Transverse Hole</p>  <p>Tang has transverse hole.</p> <p>This figure shows a black metal tang component. A blue arrow points to a circular transverse hole on the left side of the component. The component has a complex shape with a central raised section and a flange on the right.</p>
<p>(b) a housing</p>	<p>Figure 15: Housing</p>  <p>Opposite end</p> <p>Open end</p> <p>This figure shows a black cylindrical housing component. A blue arrow points to the left end, labeled 'Opposite end'. Another blue arrow points to the right end, labeled 'Open end'.</p>
<p>with an open end to receive said trailer hitch and said base plate,</p>	<p>Figure 16A: Open End of Housing</p>  <p>Open end</p> <p>This figure shows a close-up view of the open end of the housing. A blue arrow points to the circular opening, which has a notched inner edge. The label 'Open end' is next to the arrow.</p>

	<p>Figure 16B: Open End of Housing Receiving Trailer Hitch and Base Plate</p>  <p>Trailer hitch</p> <p>Base plate</p>
<p>the housing having a hole in an opposite end to receive said tang,</p>	<p>Figure 17A: Hole in Opposing End of Housing that is Opposite to the Open End</p>  <p>Housing</p> <p>Hole in an opposite end to receive.</p> <p>Figure 17B: Housing Having a Hole in the Opposite End to Receive Tang</p>  <p>Housing</p> <p>Opposite end</p> <p>Hole at opposite end having received the tang.</p> <p>Tang</p>

the hole opening into a tubular extension extending a selected distance from said opposite end; and

Figure 18: Tubular Extension



(c) a lock to be received into said tubular extension,

Figure 19: Lock in Tubular Extension



having a key operated transversely movable shot bolt to retractably extend into said transverse hole.

Figure 20A: Shot Bolt

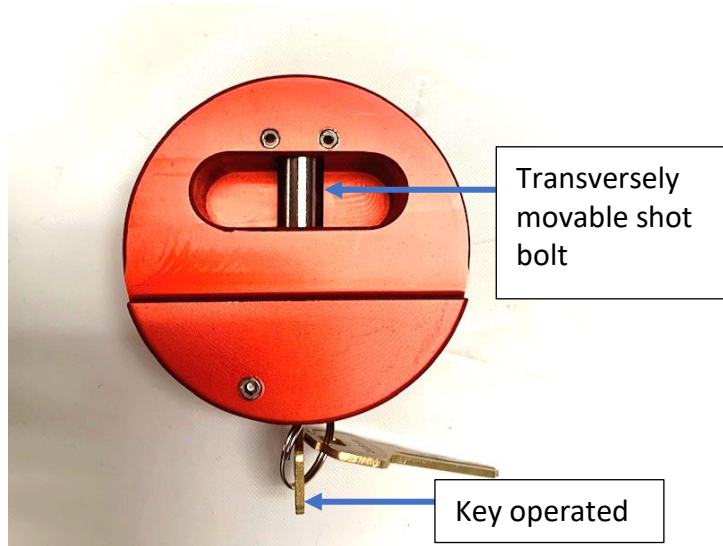
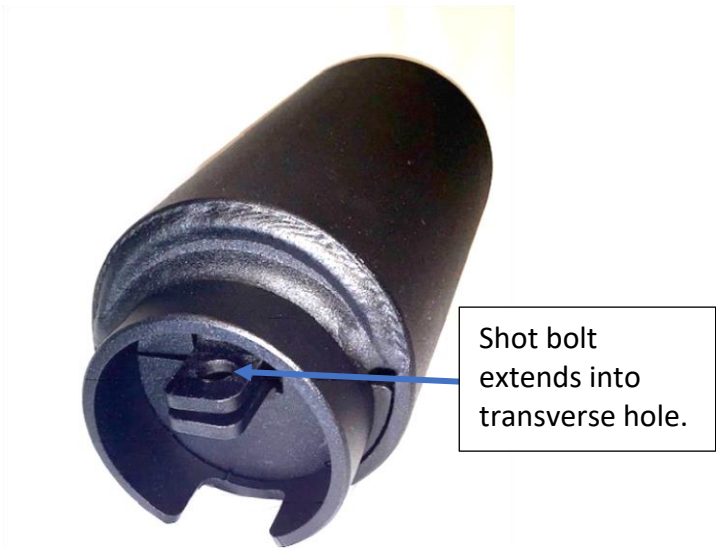


Figure 20B: Shot Bolt Retractable Extends

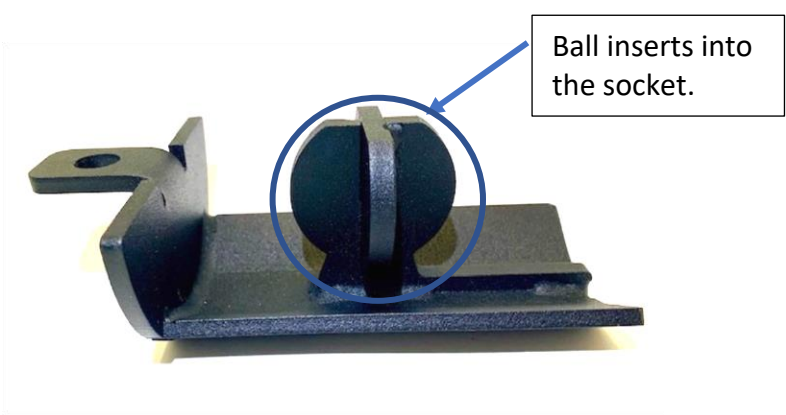


Figure 20C: Transverse Hole That Lock's Shot Bolt Extends Through



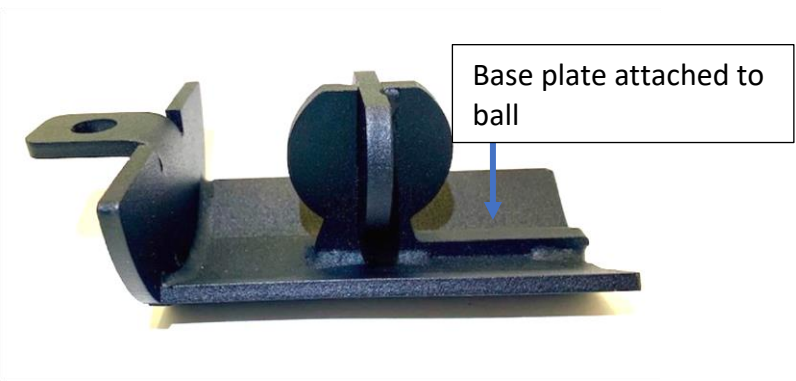
7. An anti-theft trailer hitch lock for a ball and socket type trailer tongue, comprising: a ball for insertion into said socket,

Figure 21: Ball for Insertion into the Socket



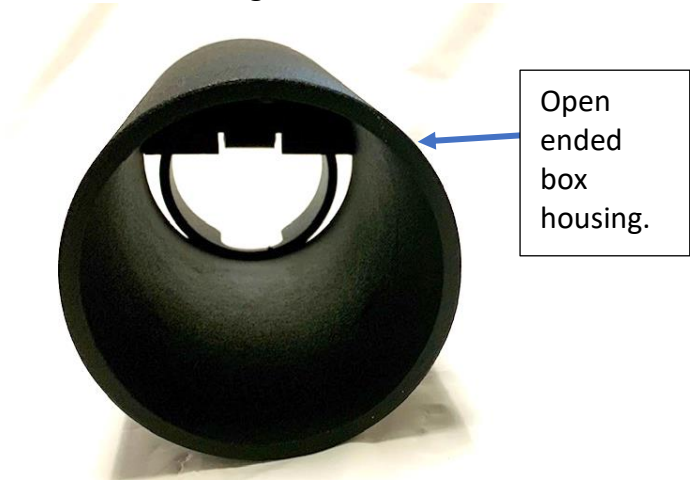
the ball having a base plate attached thereto,

Figure 22: Base Plate Attached to Ball



an open ended box housing

Figure 23: Open Ended Box Housing



with a longitudinal dimension for enclosing said base plate and an exposed end of said tongue,

Figure 24A: Box Housing with a Longitudinal Dimension

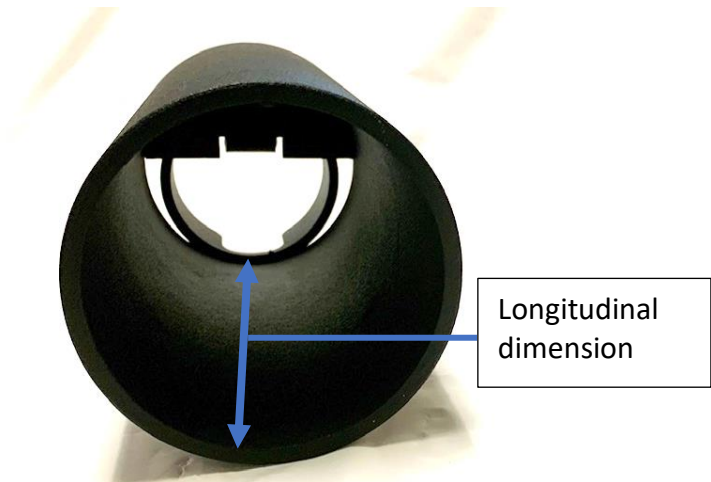
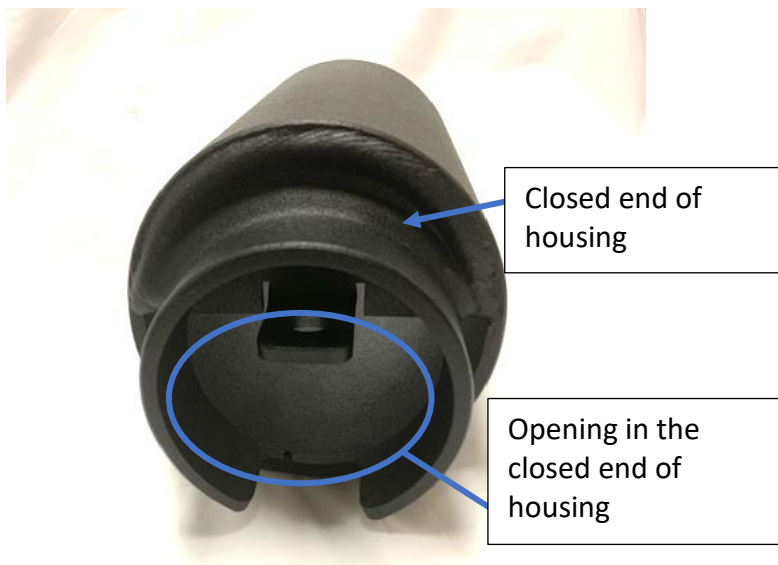


Figure 24B: Box Housing Enclosing Base Plate and Tongue



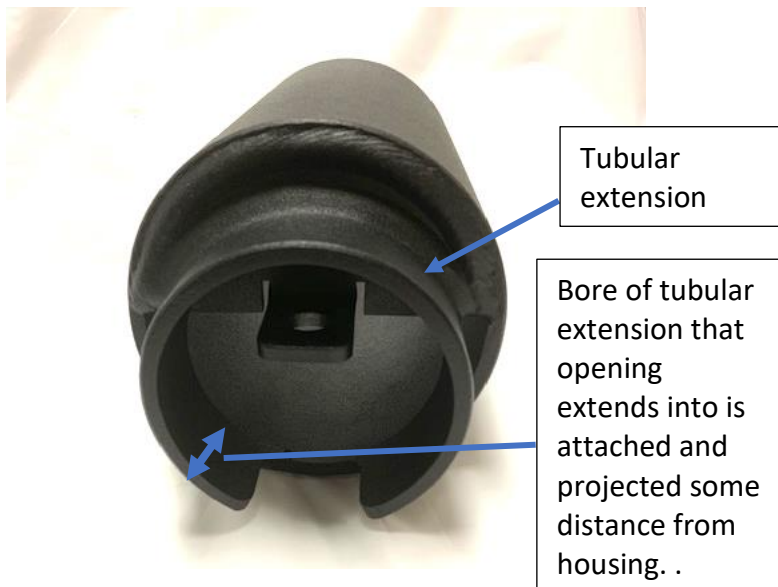
said housing having a closed end with an opening therein,

Figure 25: Closed End of Housing



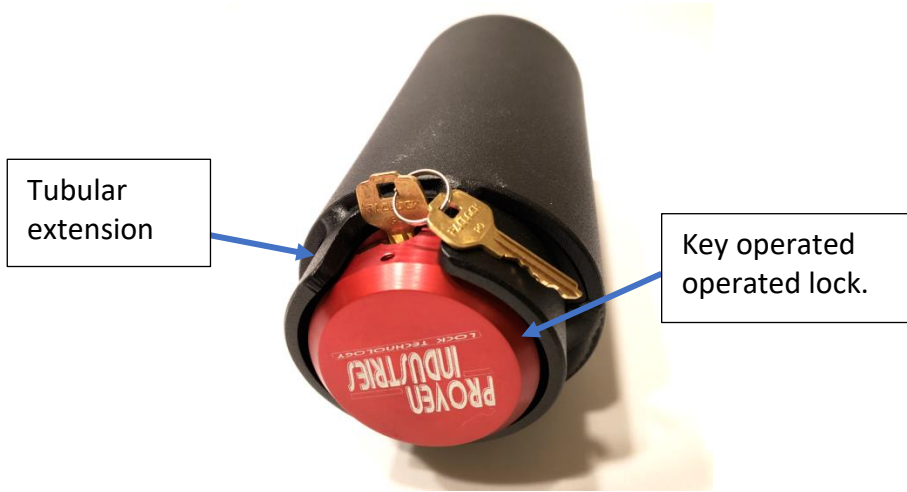
the opening extending into the bore of a tubular extension attached to and projecting some distance from said housing,

Figure 26: Opening Extending Into The Bore Of a Tubular Extension



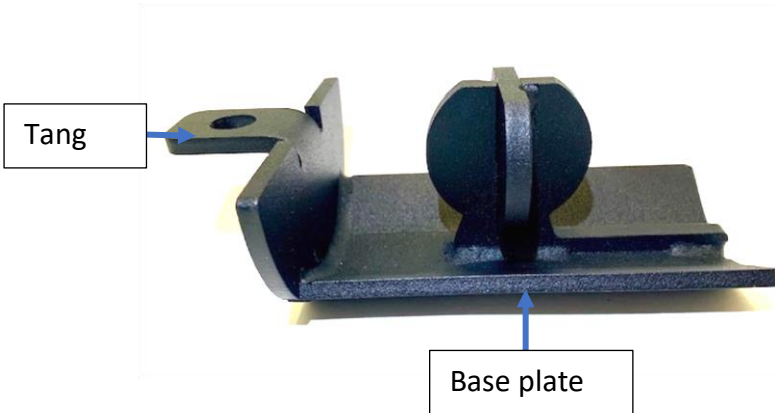
the tubular extension adapted to receive a key operated lock,

Figure 27: Tubular Extension Adapted to Receive a Key Operated Lock



a tang attached to said base plate,

Figure 28: Tubular Extension Receiving Tang Attached to Base Plate



the tang extending through said opening and

Figure 29: Tang Extending Through Opening



having a transverse hole therein to receive a retractable key actuated shot bolt movably attached to said lock.

Figure 30A: Traverse Hole in Tang

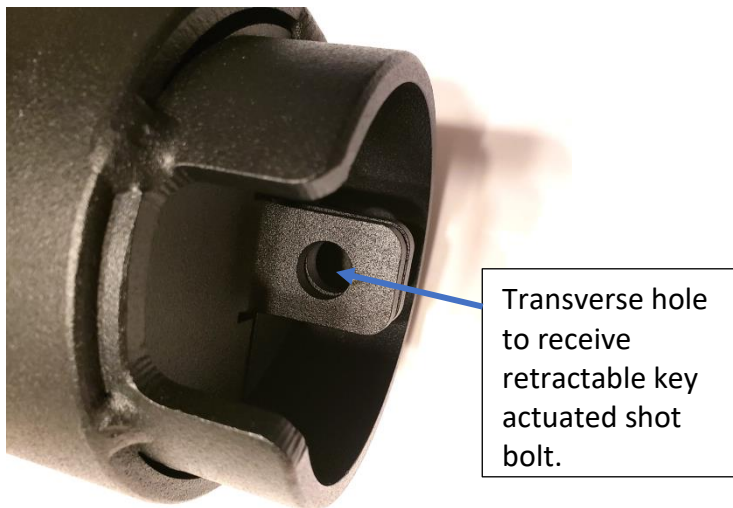


Figure 30B: Retractable Key Actuated Shot Bolt

