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**Biegun**

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- (54) **PASSENGER RESTRAINT FOR AMUSEMENT PARK RIDE**
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- (\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

4,555,831	A *	12/1985	Otzen	.....	B60R 22/321
					297/468 X
5,044,664	A *	9/1991	Mogi	.....	B60R 13/025
					297/468 X
5,129,478	A *	7/1992	Suenaga	.....	B60R 21/02
					297/487 X
5,286,091	A *	2/1994	Busch	.....	B60R 21/02
					297/464
7,677,671	B2 *	3/2010	Steininger	.....	A63G 7/00
					297/487
8,449,038	B2 *	5/2013	Flanigan	.....	B60R 22/00
					297/468 X
8,590,935	B1 *	11/2013	Leedy	.....	B60R 22/321
					297/468 X
8,998,340	B1 *	4/2015	Biegun	.....	A63G 7/00
					297/464
2012/0068521	A1 *	3/2012	Roodenburg	.....	B60R 21/026
					297/487

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**Related U.S. Application Data**

(63) Continuation-in-part of application No. 14/083,276, filed on Nov. 18, 2013, now Pat. No. 8,998,340.

(51) **Int. Cl.**

- B60R 21/00** (2006.01)
- B60R 22/32** (2006.01)
- A63G 7/00** (2006.01)
- B60R 22/18** (2006.01)
- A44B 11/25** (2006.01)
- B60R 22/48** (2006.01)

(52) **U.S. Cl.**

CPC ..... **B60R 22/321** (2013.01); **A63G 7/00** (2013.01); **A44B 11/2573** (2013.01); **B60R 2021/0097** (2013.01); **B60R 2022/1806** (2013.01); **B60R 2022/4816** (2013.01)

(58) **Field of Classification Search**

CPC ..... **A63G 7/00**; **B60R 2022/1806**  
USPC ..... **297/464, 468, 487**  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,955,056	A *	5/1976	Lindblad	.....	B60R 22/48
					297/468 X
4,345,780	A *	8/1982	Moriya	.....	B60R 22/04
					280/802

\* cited by examiner

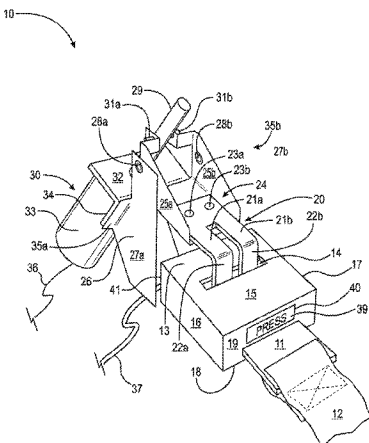
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(57) **ABSTRACT**

A passenger restraint including a buckle, a locking arm, a power supply, a bracket, a mount, and a rod. The buckle has a top surface, front surface and a button integral with the front surface, where the button is capable of being depressed. The bracket is secured to the locking arm. The power supply is secured to the mount and the bracket is secured to and pivotable about the mount. The rod is affixed to the bracket and the rod is secured to the power supply. The locking arm is in an open position until an electrical signal from the power supply is applied, such that when an electrical signal is applied, the rod is operatively arranged to extend outwardly from the power supply, such that when the rod extends outwardly, the bracket pivots forcing the locking arm downwardly into an opening of the buckle and into a closed position.

**14 Claims, 10 Drawing Sheets**



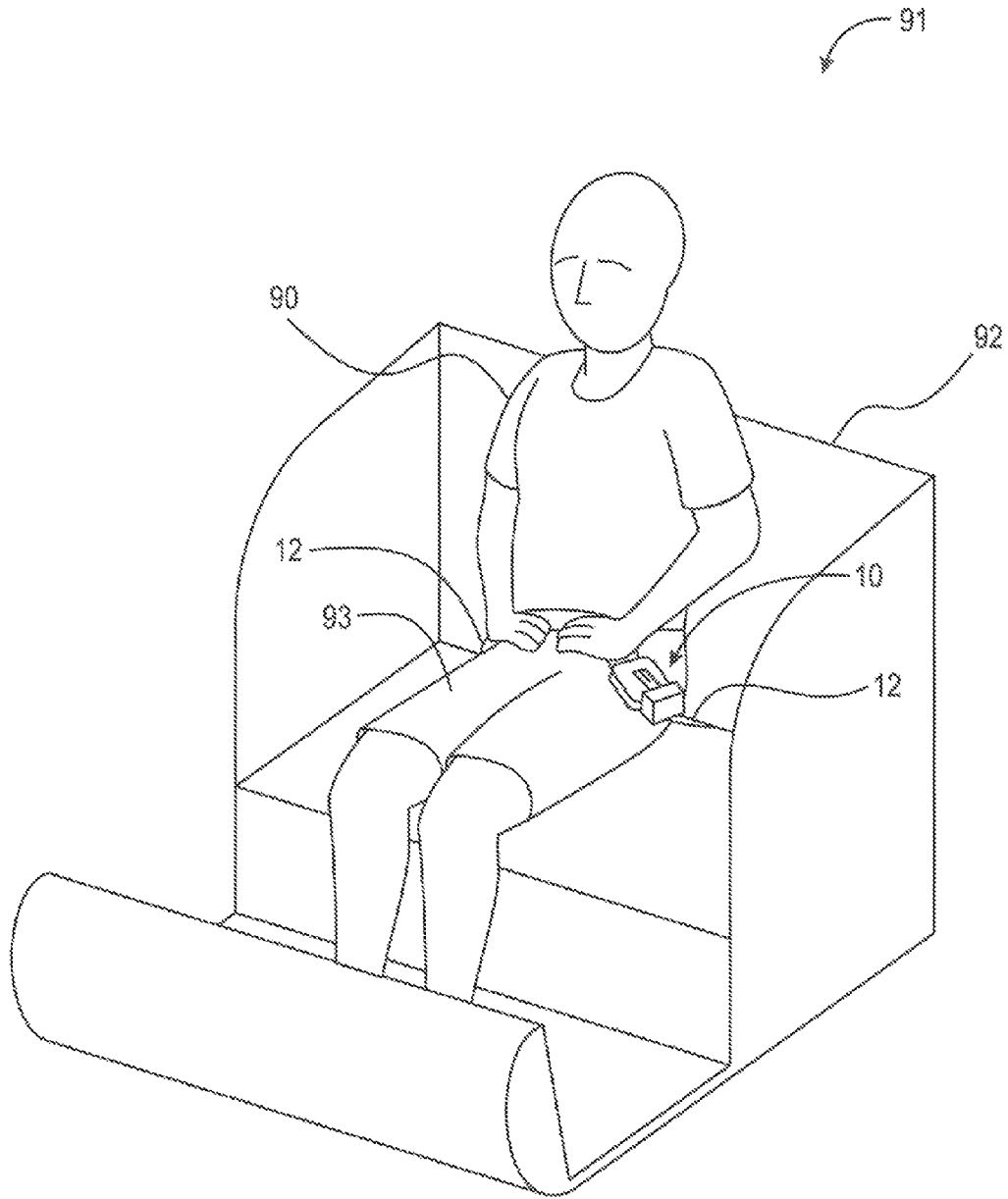


Fig. 1

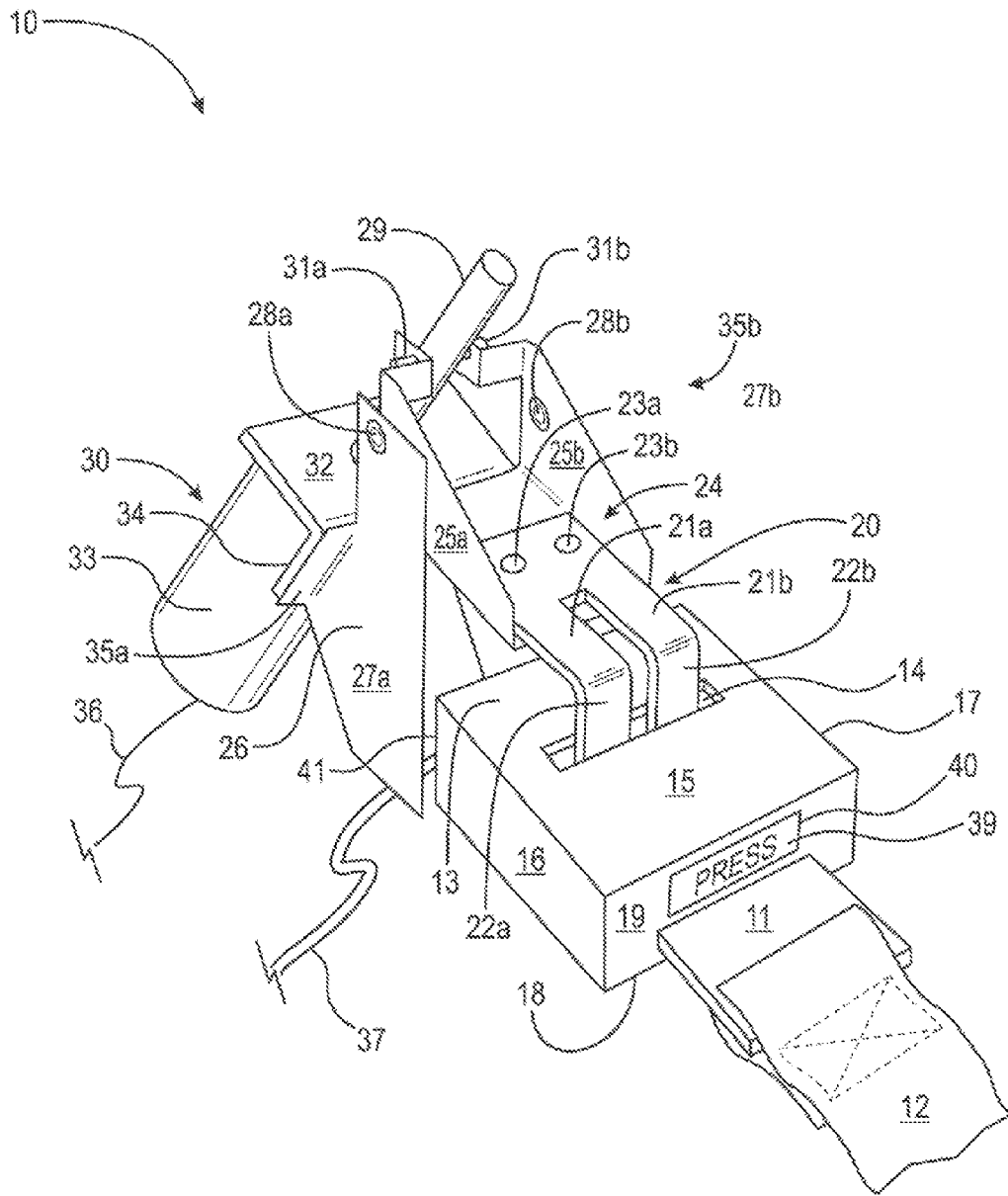


Fig. 2

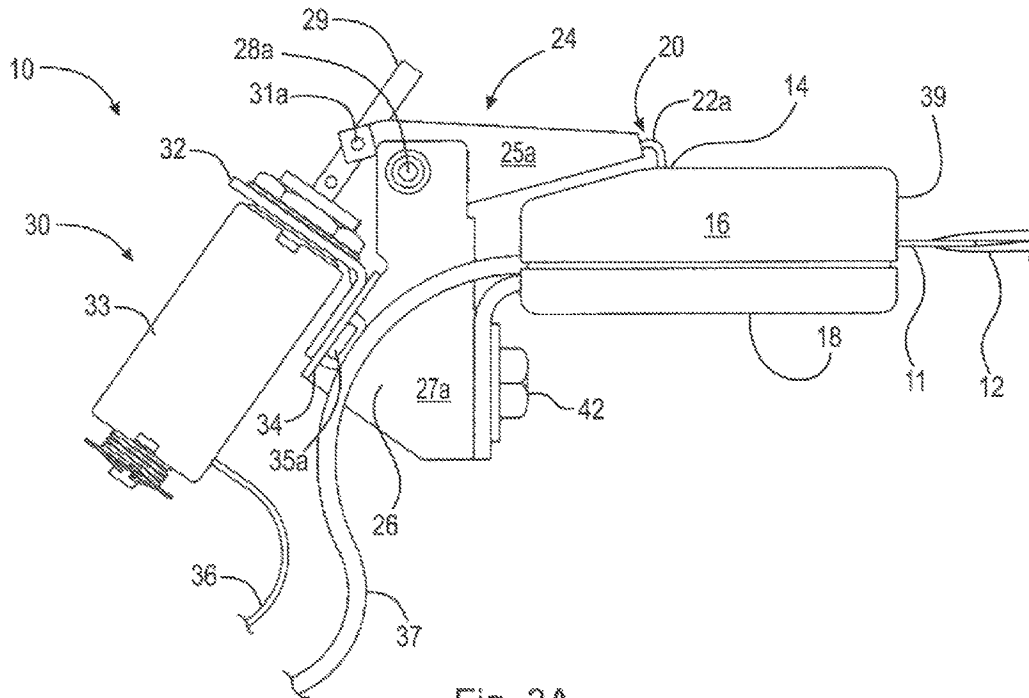


Fig. 3A

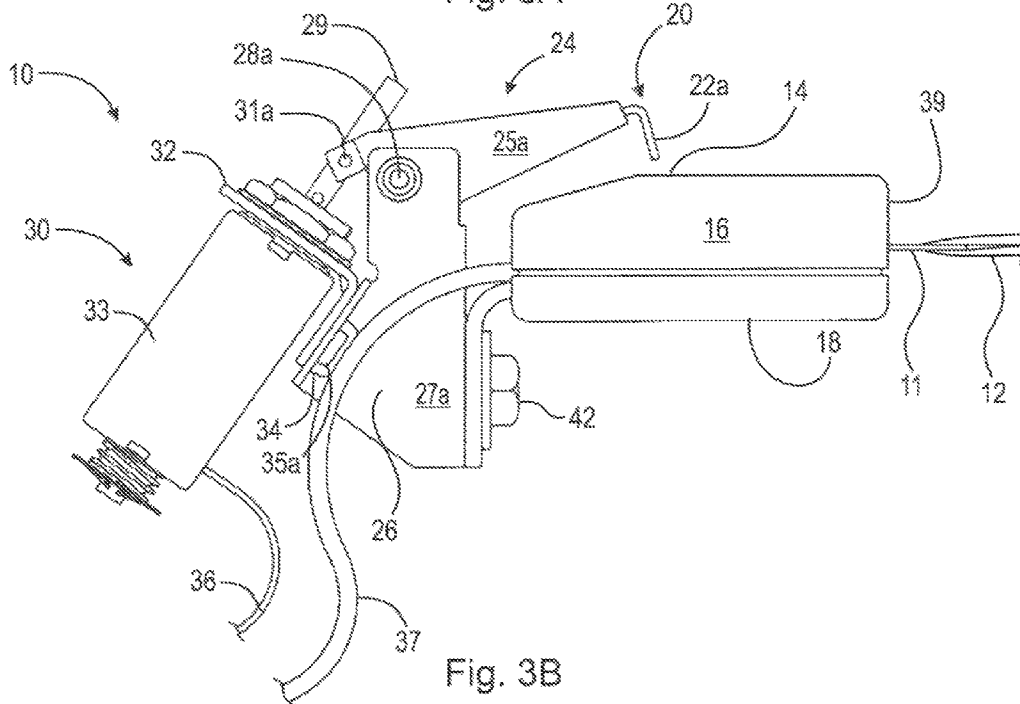


Fig. 3B

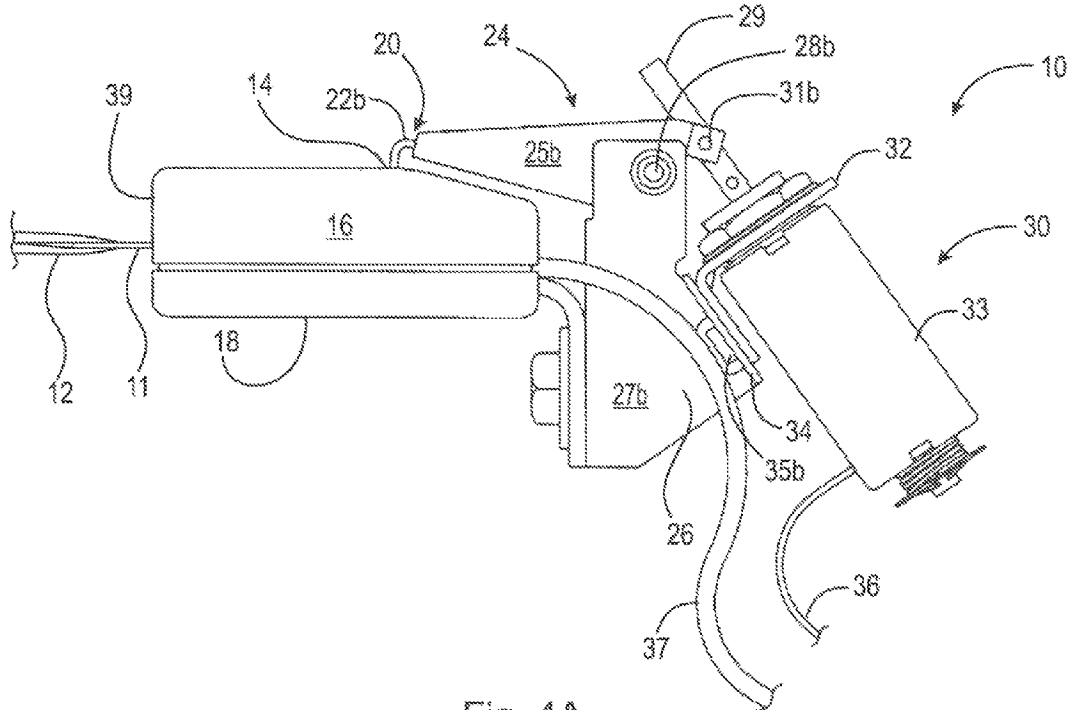


Fig. 4A

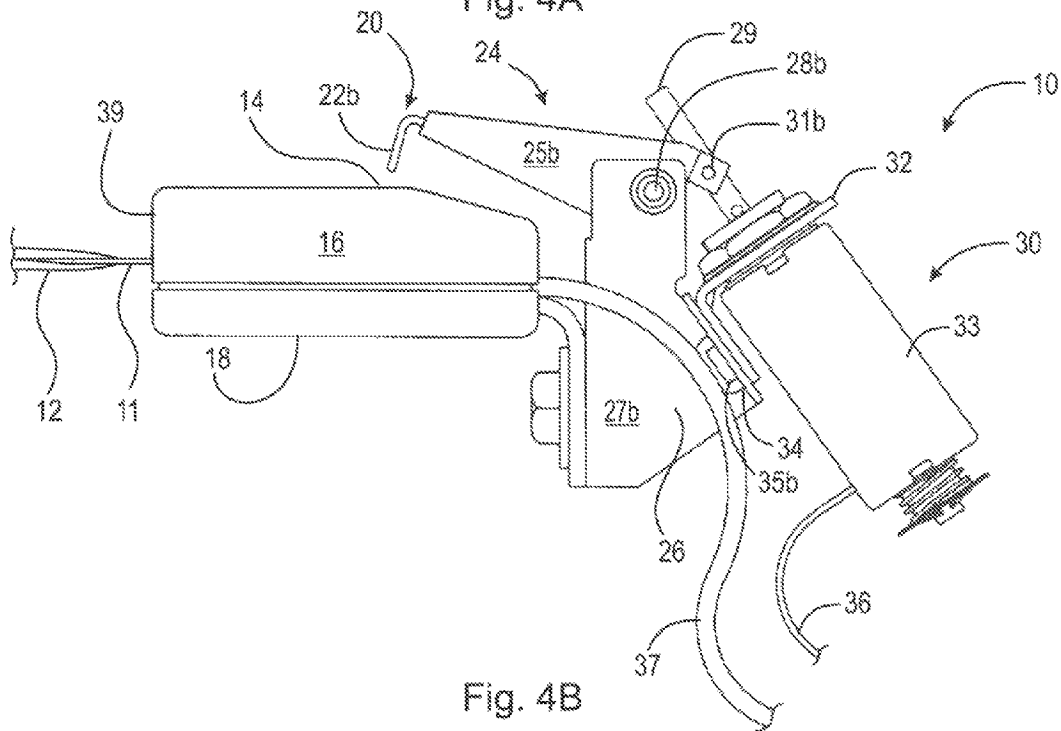


Fig. 4B

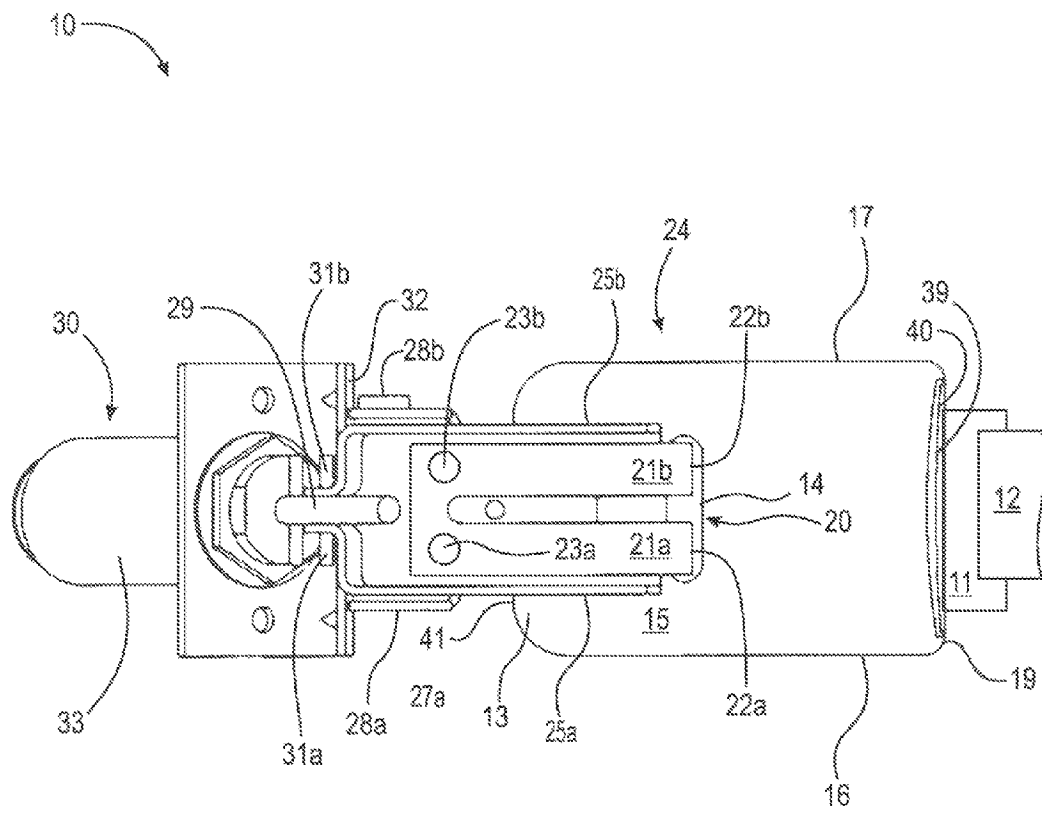


Fig. 5

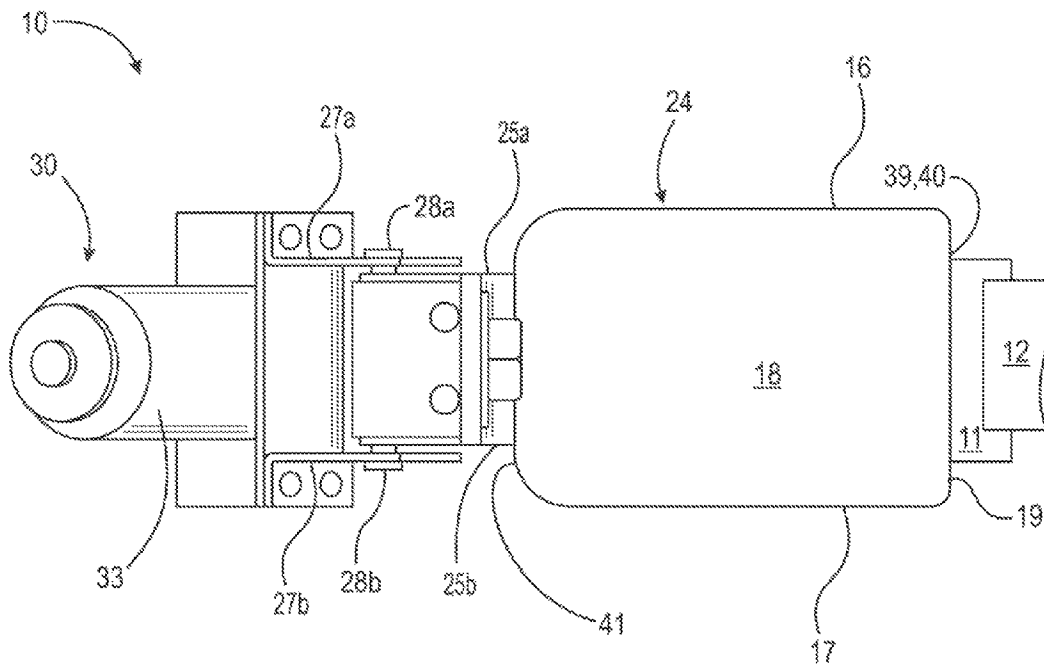


Fig. 6

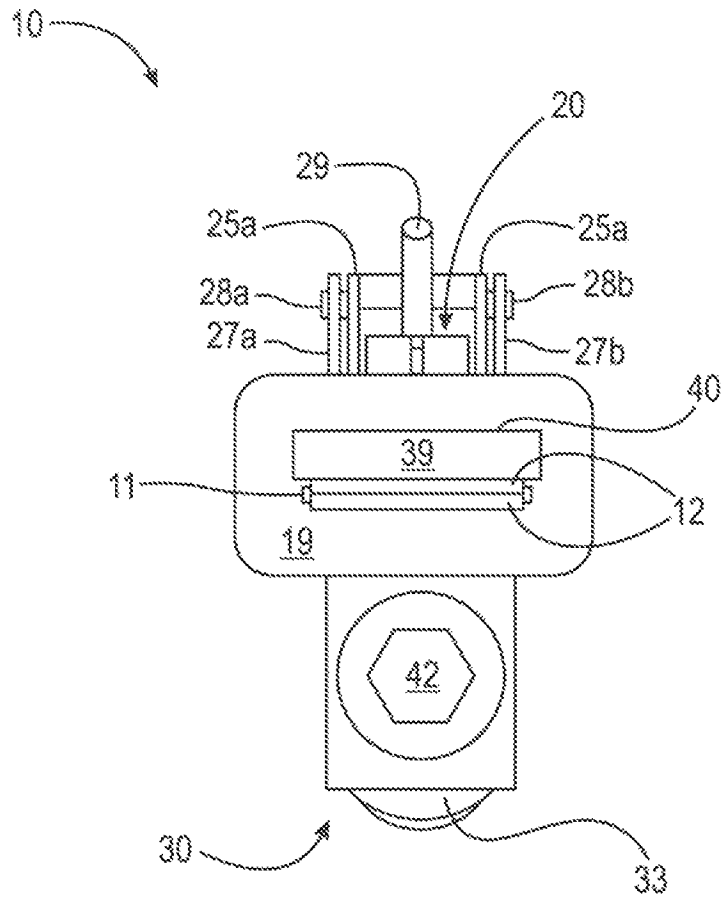


Fig. 7



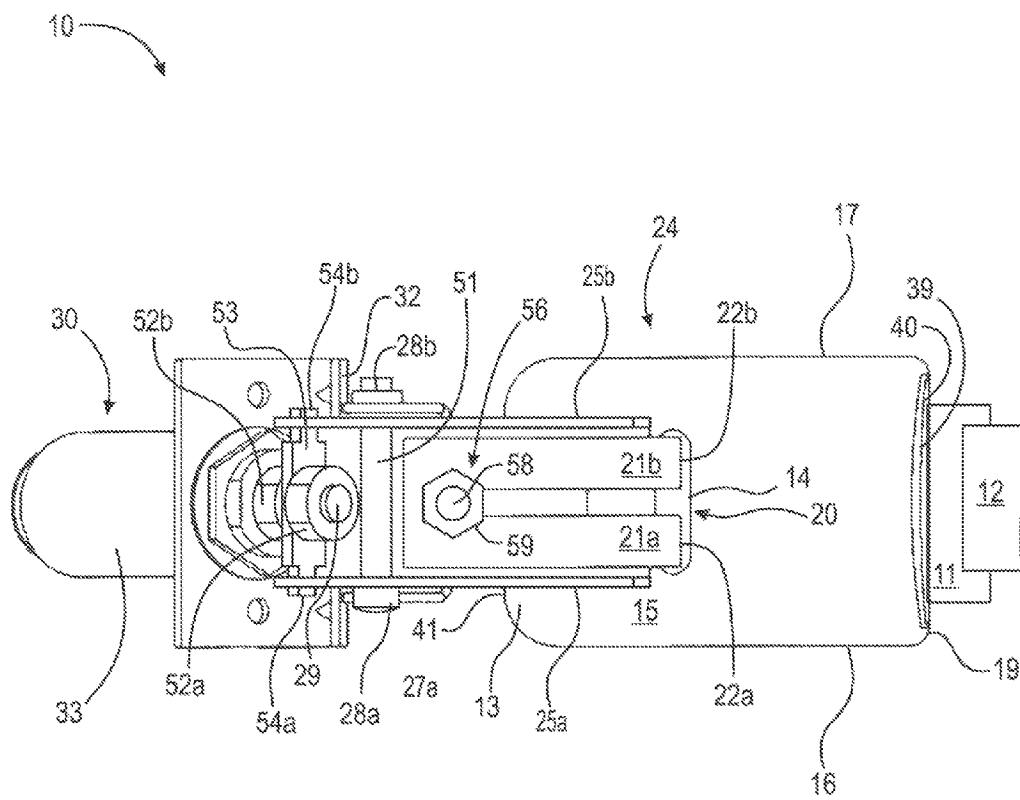


Fig. 8

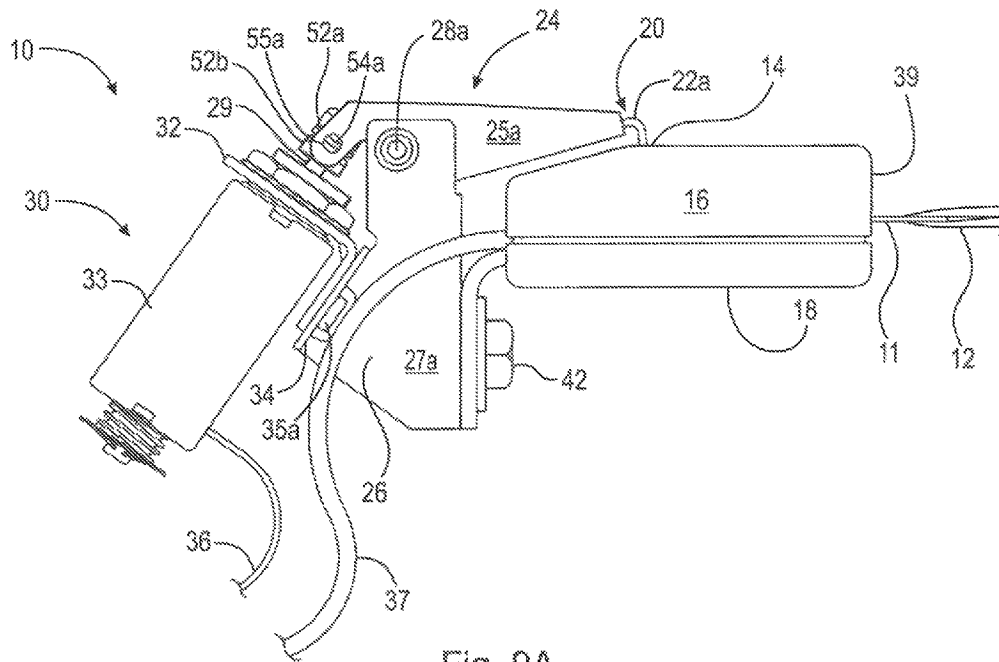


Fig. 9A

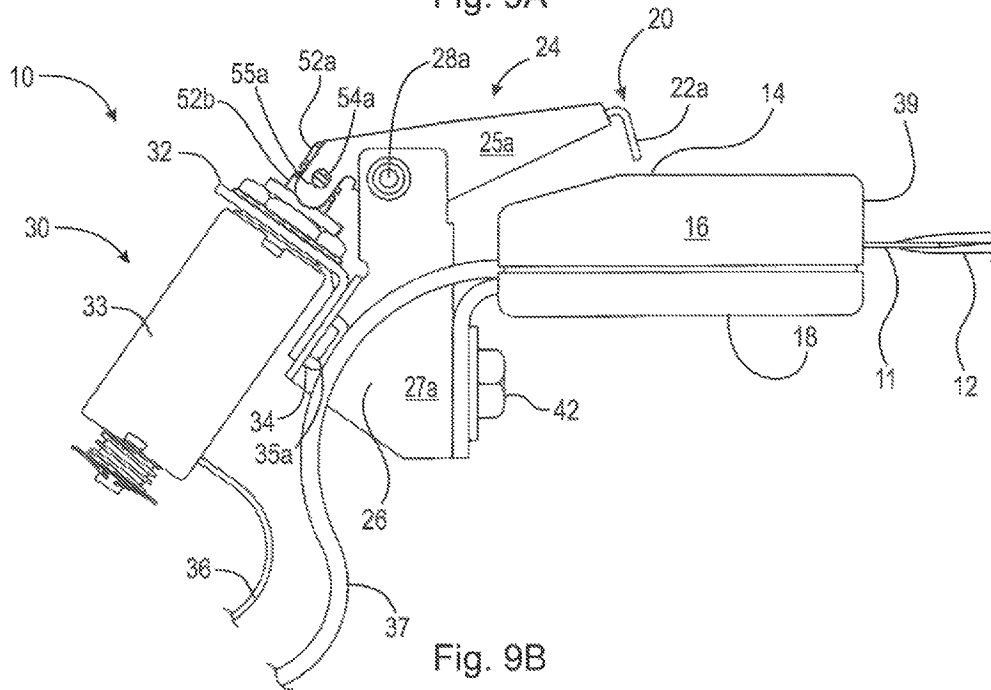


Fig. 9B

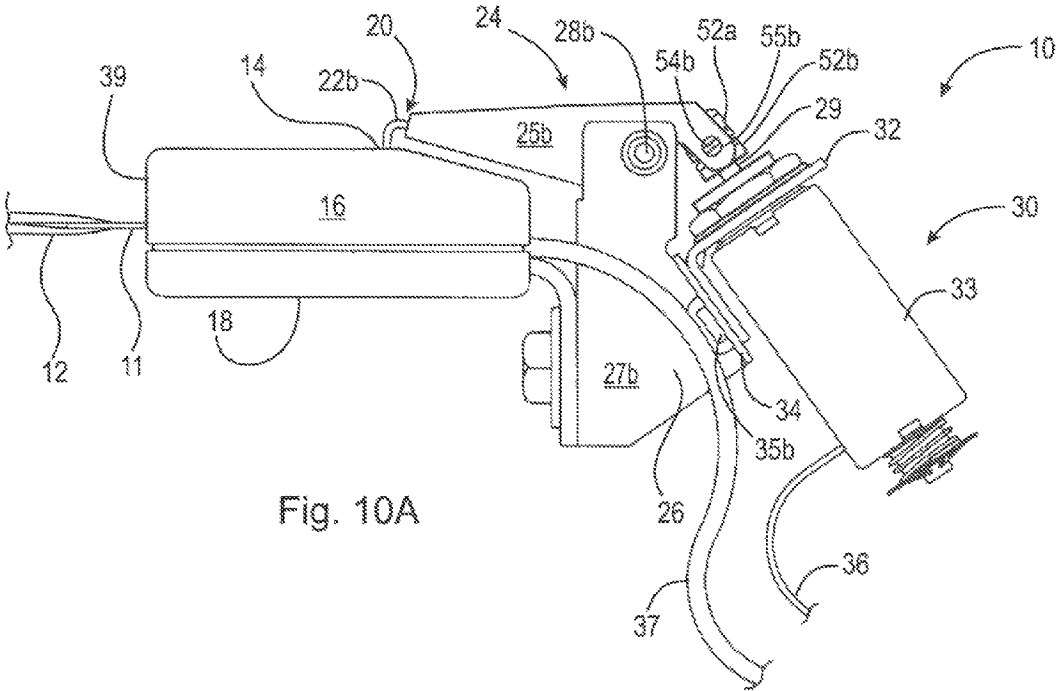


Fig. 10A

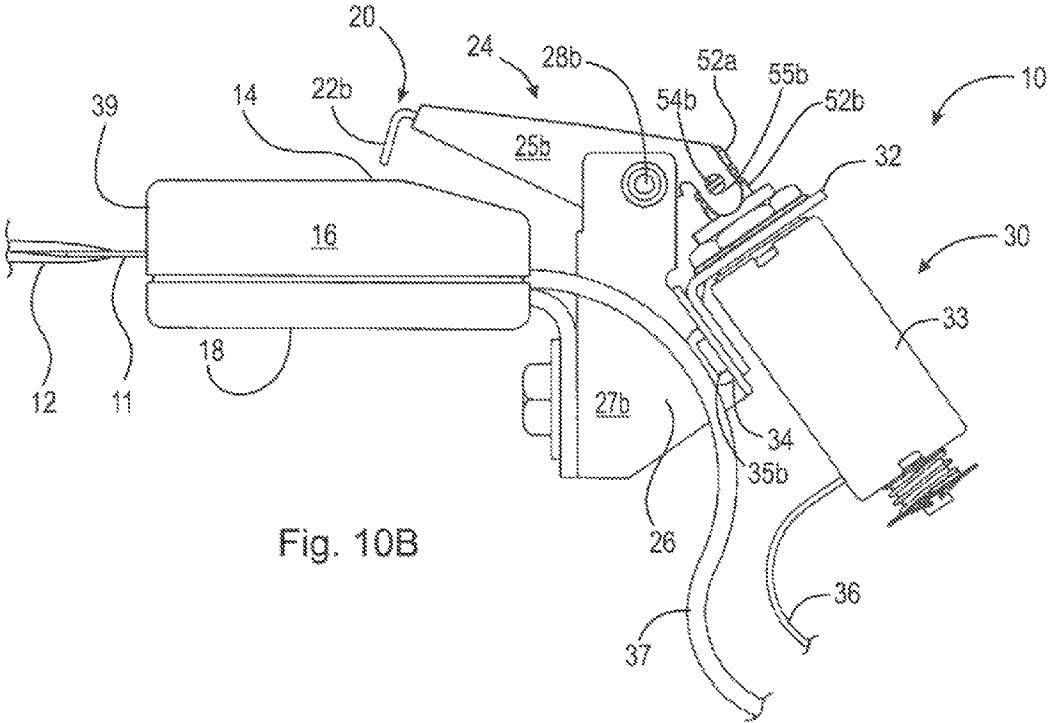


Fig. 10B

1

## PASSENGER RESTRAINT FOR AMUSEMENT PARK RIDE

### CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a Continuation-in-Part patent application under 35 U.S.C. §120 of U.S. patent application Ser. No. 14/083,276 filed Nov. 18, 2013, now U.S. Pat. No. 8,998,340, which application is incorporated herein by reference.

### FIELD OF THE INVENTION

The invention broadly relates to a passenger restraint for an amusement park ride, and in particular, to a passenger restraint having a buckle and a locking arm, such that when an electrical signal is applied, the locking arm shifts from an open position to a closed position.

### BACKGROUND OF THE INVENTION

Passenger restraints for amusement park rides are well known. Amusement park rides can include a variety of different ride types, such as thrill rides, roller coasters, train rides, water rides, Ferris wheels, transport rides, and the like. Depending on the ride, the majority of amusement park rides have some form of passenger restraint to prevent riders from falling from the ride or exiting the ride at an inappropriate time. Amusement park rides are subject to state and local governmental codes, requirements, and safety inspections, and must pass rigorous inspections by insurance companies.

Despite safety measures, accidents relating to amusement park rides can, and do, occur. Ride accidents can be caused by riders themselves, ride operators not following safety directions properly, or by mechanical failures related to the ride or passenger restraints. Additionally, a major cause of deaths and injuries on amusement park rides is preventable error. This would include such things as the lack of routine maintenance and the disregard of safety rules by both operators and riders. In particular, on rides having lap restraints, riders have been known to unbuckle the restraint while the ride is in motion, posing a serious risk of injury and potentially death, not only to that particular rider but to other riders as well. Thus, there is a long felt need for a passenger restraint for an amusement park ride that complies with current safety standards and prevents riders from being able to undo the restraint and exit the ride while the ride is in motion.

### BRIEF SUMMARY OF THE INVENTION

The present invention broadly includes a buckle, a locking arm, a power supply, a bracket, a mount, and a rod. The buckle has a top surface, front surface and a button integral with the front surface, where the button is capable of being depressed. The locking arm has first and second extensions, each extension extending outwardly therefrom, and first and second prongs, each prong extending downwardly from the first and second extensions, respectively. The top surface of the buckle includes an opening operatively arranged to receive the first and second prongs. The bracket is secured to the locking arm. The mount has first and second mount sides and first and second mount side fastening means. The power supply is secured to the mount and the bracket is secured to and pivotable about the mount via first and second mount side fastening means. The bracket further includes

2

first and second rod fastening means and the rod is secured to the bracket via first and second rod fastening means. Additionally, the rod is secured to the power supply and the locking arm is in an open position until an electrical signal from the power supply is applied. When an electrical signal is applied, the rod is operatively arranged to extend outwardly from the power supply, such that when the rod extends outwardly, the bracket pivots about the first and second mount side fastening means, forcing the locking arm downwardly into the opening of the buckle, and thus, into a closed position.

In one embodiment, the power supply is a solenoid, and preferably, the solenoid is 12 volts. However, it should be appreciated that the power supply can be any suitable type of power supply of any voltage known in the art.

In another embodiment, the passenger restraint further includes a belt and a tongue, where the tongue is secured to the belt. The buckle further includes a spring secured to the button, where the button has a first position and a second position, such that in a resting state the button is in a first position. When the button is depressed, it forms a second position and when the button is released the spring returns the button to the first position. The front surface of the buckle further includes an aperture and the aperture is capable of receiving the tongue. When the locking arm is in a closed position, the button is incapable of being depressed and the tongue is incapable of being removed from the aperture.

In yet another embodiment, the passenger restraint further includes a signaling source and the buckle further includes at least one wire. When the tongue is inserted into the aperture, the tongue makes contact with the at least one wire, where the at least one wire is connected to the signaling source and the signaling source is operatively arranged to change state when the tongue is inserted into the aperture. The signaling source has a first indicator when the tongue is inserted and a second indicator when the tongue is removed, and preferably, the first indicator is a green light and the second indicator is a red light.

In an alternate embodiment, the present invention broadly includes a buckle, a locking arm, a power supply, a bracket, a mount, and a rod. The buckle has a top surface, front surface and a button integral with the front surface and the button is capable of being depressed. The top surface of the buckle includes an opening operatively arranged to receive the locking arm and the bracket is secured to the locking arm. The power supply is secured to the mount and the bracket is secured to and pivotable about the mount. The rod is affixed to the bracket and the rod is secured to the power supply. The locking arm is in an open position until an electrical signal from the power supply is applied, such that when an electrical signal is applied, the rod is operatively arranged to extend outwardly from the power supply, such that when the rod extends outwardly, the bracket pivots, forcing the locking arm downwardly into the opening of the buckle and into a closed position.

In one embodiment of the alternate embodiment, the locking arm has first and second extensions, each extension extending outwardly therefrom, and first and second prongs, each prong extending downwardly from the first and second extensions, respectively. The mount has first and second mount sides and at least one fastening means, the power supply is secured to the mount, and the bracket is secured to and pivotable about the mount via the at least one fastening means. The rod is affixed to the bracket via a plate and the plate is disposed substantially perpendicular to the rod.

3

In another embodiment of the alternate embodiment, the power supply is a solenoid, and preferably, the solenoid is 12 volts. However, it should be appreciated that the power supply can be any suitable type of power supply of any voltage known in the art.

In yet another embodiment of the alternate embodiment, the passenger restraint further includes a belt and a tongue, where the tongue is secured to the belt. The buckle further includes a spring secured to the button, where the button has a first position and a second position, such that in a resting state the button is in a first position. When the button is depressed, it forms a second position and when the button is released the spring returns the button to the first position. The front surface of the buckle further includes an aperture and the aperture is capable of receiving the tongue. When the locking arm is in a closed position, the button is incapable of being depressed and the tongue is incapable of being removed from the aperture.

In yet another embodiment of the alternate embodiment, the passenger restraint further includes a signaling source and the buckle further includes at least one wire. When the tongue is inserted into the aperture, the tongue makes contact with the at least one wire, where the at least one wire is connected to the signaling source and the signaling source is operatively arranged to change state when the tongue is inserted into the aperture. The signaling source has a first indicator when the tongue is inserted and a second indicator when the tongue is removed, and preferably, the first indicator is a green light and the second indicator is a red light.

These and other objects and advantages of the present invention will be readily appreciable from the following description of preferred embodiments of the invention and from the accompanying drawings and claims.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The nature and mode of operation of the present invention will now be more fully described in the following detailed description of the invention taken with the accompanying drawing figures, in which:

FIG. 1 is a perspective view of a passenger restraint for an amusement park ride, shown with a rider seated in the amusement park ride and secured via the passenger restraint;

FIG. 2 is a front perspective view of the passenger restraint of FIG. 1;

FIG. 3a is a left side elevational view of the passenger restraint of FIG. 2, shown in a closed position;

FIG. 3b is a left side elevational view of the passenger restraint of FIG. 2, shown in an open position;

FIG. 4a is a right side elevational view of the passenger restraint of FIG. 2, shown in a closed position;

FIG. 4b a right side elevational view of the passenger restraint of FIG. 2, shown in an open position;

FIG. 5 is a top plan view of the passenger restraint of FIG. 2;

FIG. 6 is a bottom plan view of the passenger restraint of FIG. 2; and,

FIG. 7 is a front elevational view of the passenger restraint of FIG. 2.

FIG. 8 is a top plan view of an alternate embodiment of the passenger restraint.

FIG. 9a is a left side elevational view of the alternate embodiment of the passenger restraint of FIG. 8, shown in a closed position.

FIG. 9b is a left side elevational view of the alternate embodiment of the passenger restraint of FIG. 8, but shown in an open position.

4

FIG. 10a is a right side elevational view of the alternate embodiment of the passenger restraint of FIG. 8, shown in a closed position.

FIG. 10b a right side elevational view of the alternate embodiment of the passenger restraint of FIG. 8, but shown in an open position.

#### DETAILED DESCRIPTION OF THE INVENTION

At the outset, it should be appreciated that like drawing numbers on different drawing views identify identical, or functionally similar, structural elements of the invention. It also should be appreciated that figure proportions and angles are not always to scale in order to clearly portray the attributes of the present invention.

While the present invention is described with respect to what is presently considered to be the preferred aspects, it is to be understood that the invention as claimed is not limited to the disclosed aspects. The present invention is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims.

Furthermore, it is understood that this invention is not limited to the particular methodology, materials and modifications described and, as such, may, of course, vary. It is also understood that the terminology used herein is for the purpose of describing particular aspects only, and is not intended to limit the scope of the present invention, which is limited only by the appended claims.

Unless defined otherwise, all technical and scientific terms used herein have the same meaning as commonly understood to one of ordinary skill in the art to which this invention belongs. Although any methods, devices or materials similar or equivalent to those described herein can be used in the practice or testing of the invention, the preferred methods, devices, and materials are now described.

Adverting now to the figures, FIG. 1 is a perspective view of passenger restraint 10 of the present invention for amusement park ride 91, shown with rider 90 seated on bench 92 of amusement park ride 91 and secured via passenger restraint 10. Passenger restraint 10 is secured across lap 93 of rider 90.

FIG. 2 is a front perspective view of passenger restraint 10.

FIG. 3a is a left side elevational view of passenger restraint 10, shown in a closed position. Similarly, FIG. 3b is a left side elevational view of passenger restraint 10, but shown in an open position.

FIG. 4a is a right side elevational view of passenger restraint 10, shown in a closed position. Similarly, FIG. 4b a right side elevational view of passenger restraint 10, but shown in an open position.

FIG. 5 is a top plan view of passenger restraint 10.

FIG. 6 is a bottom plan view of passenger restraint 10.

FIG. 7 is a front elevational view of passenger restraint 10.

The present invention passenger restraint 10 broadly includes buckle 13, locking arm 20, power supply 33, bracket 24, mount 26, and rod 29. Buckle 13 has top surface 15, front surface 19, left side surface 16, right side surface 17, bottom surface 18, and rear surface 41. Buckle 13 further includes button 39 integral with front surface 19, such that button 19 is capable of being depressed. Locking arm 20 has first and second extensions 21a, 21b, each extension 21a, 21b extending outwardly from locking arm 20. Locking arm 20 also has first and second prongs 22a, 22b, each prong 22a, 22b extending downwardly from first and second

5

extensions **21a**, **21b**, respectively. Top surface **15** of buckle **13** includes opening **14** operatively arranged to receive first and second prongs **22a**, **22b**. Bracket **24** is secured to locking arm **20**. Mount **26** has first and second mount sides **27a**, **27b** and first and second mount side fastening means **28a**, **28b**. Power supply **33**, which includes at least one wire **36**, is secured to mount **26** and bracket **24** is secured to and pivotable about mount **26** via first and second mount side fastening means **27a**, **27b**. Bracket **24** further includes first and second rod fastening means **31a**, **31b** and rod **29** is secured to bracket **24** via first and second rod fastening means **31a**, **31b**. Additionally, rod **29** is secured to and mounted on power supply **33** via support **32**, which includes back plate **34**. Mount **26** is secured to power supply **33** via back plate **34** by first and second back plate fastening means **35a**, **35b**. Rod **29**, power supply **33**, and support **32** form power supply assembly **30**. When in a resting state, locking arm **20** is in an open position until an electrical signal from power supply **33** is applied. When an electrical signal is applied, rod **29** is operatively arranged to extend outwardly from power supply **33**, such that when rod **29** extends outwardly, bracket **24** pivots about first and second mount side fastening means **28a**, **28b**, forcing locking arm **20** downwardly into opening **14** of buckle **13**, and thus, into a closed position. Locking arm **20** is secured to bracket **24** via first and second locking arm fastening means **23a**, **23b**. First mount side **27a** is secured to first bracket side **25a** via first mount side fastening means **28a**. Similarly, second mount side **27b** is secured to second bracket side **25b** via second mount side fastening means **28b**. Mounting plate **43** secures buckle **13** to mount **26** via fastening means **42**.

In one embodiment, the power supply **33** is a solenoid, and preferably, the solenoid is 12 volts. However, it should be appreciated that the power supply can be any suitable type of power supply of any voltage known in the art.

In another embodiment, passenger restraint **10** further includes belt **12** and tongue **11**, where tongue **11** is secured to belt **12**. Buckle **13** further includes a spring (not shown in the figures) within buckle **13** secured to button **39**. Button **39** has a first position and a second position, such that in a resting state the button is in a first position. When the button is depressed, it forms a second position and when the button is released the spring returns the button to the first position. Front surface **19** of buckle **13** further includes aperture **40** and aperture **40** is capable of receiving tongue **11**. When locking arm **20** is in a closed position, button **39** is incapable of being depressed and tongue **11** is incapable of being removed from aperture **40**.

In yet another embodiment, passenger restraint **10** further includes a signaling source (not shown in the figures) and buckle **13** further includes at least one wire **37**. When tongue **11** is inserted into aperture **40**, tongue **11** makes contact with at least one wire **37**, where the at least one wire **37** is connected to the signaling source and the signaling source is operatively arranged to change state when tongue **11** is inserted into aperture **40**. The signaling source has a first indicator (not shown in the figures) when the tongue is inserted and a second indicator (not shown in the figures) when the tongue is removed. Preferably, the first indicator is a green light and the second indicator is a red light.

It should be appreciated that, any of the fastening or attachment means of the passenger restraint can be any suitable fastening means known in the art, such as but not limited to, screws, bolts, welds, etc.

FIG. **8** is a top plan view of an alternate embodiment of passenger restraint **10**.

6

FIG. **9a** is a left side elevational view of the alternate embodiment of passenger restraint **10**, shown in a closed position. Similarly, FIG. **9b** is a left side elevational view of the alternate embodiment of passenger restraint **10**, but shown in an open position.

FIG. **10a** is a right side elevational view of the alternate embodiment of passenger restraint **10**, shown in a closed position. Similarly, FIG. **10b** a right side elevational view of the alternate embodiment of passenger restraint **10**, but shown in an open position.

FIGS. **8** through **10b** depict an alternate embodiment of passenger restraint **10**. Similar to the first embodiment, passenger restraint **10** broadly includes buckle **13**, locking arm **20**, power supply **33**, bracket **24**, mount **26**, and rod **29**. Buckle **13** has top surface **15**, front surface **19**, left side surface **16**, right side surface **17**, bottom surface **18**, and rear surface **41**. Buckle **13** further includes button **39** integral with front surface **19**, such that button **19** is capable of being depressed. Locking arm **20** has first and second extensions **21a**, **21b**, each extension **21a**, **21b** extending outwardly from locking arm **20**. Locking arm **20** also has first and second prongs **22a**, **22b**, each prong **22a**, **22b** extending downwardly from first and second extensions **21a**, **21b**, respectively. Top surface **15** of buckle **13** includes opening **14** operatively arranged to receive first and second prongs **22a**, **22b**. Bracket **24** is secured to locking arm **20**. Power supply **33**, which includes at least one wire **36**, is secured to mount **26**.

In contrast to the first embodiment, mount **26** has first and second mount sides **27a**, **27b** and at least one fastening means, bolt **51**, which is disposed substantially perpendicular to first and second mount sides **27a**, **27b**, and secures bracket **24** to mount **26**, allowing bracket **24** to pivot about mount **26**. Bolt **51** includes first and second mount side fastening means **28a**, **28b**, which secure bolt **51** to first and second mount sides **27a**, **27b**, respectively.

Additionally, in contrast to the first embodiment, rod **29** is secured to bracket **24** via plate **53** and plate **53** is disposed substantially perpendicular to rod **29**. Rod **29** is disposed through first and second nuts **52a**, **52b**. In particular, first nut **52a** is secured to rod **29** and adjacent to the face of plate **51** distal from power supply **33**, whereas second nut **52b** is secured to rod **29** and adjacent to the face of plate **51** proximate to power supply **33**. Furthermore, plate **51** includes first and second tabs **54a**, **54b** disposed on opposite ends of plate **51**. Bracket **24** includes first and second apertures **55a**, **55b**. In particular, first bracket side **25a** includes first aperture **55a** and second bracket side **25b** includes second aperture **55b**. When plate **51** is secured to rod **29**, first tab **54a** is disposed within first aperture **55a**, and second tab **54b** is disposed within second aperture **55b**.

Similar to the first embodiment, rod **29** is secured to and mounted on power supply **33** via support **32**, which includes back plate **34**. Mount **26** is secured to power supply **33** via back plate **34** by first and second back plate fastening means **35a**, **35b**. Rod **29**, power supply **33**, and support **32** form power supply assembly **30**. When in a resting state, locking arm **20** is in an open position until an electrical signal from power supply **33** is applied. When an electrical signal is applied, rod **29** is operatively arranged to extend outwardly from power supply **33**, such that when rod **29** extends outwardly, bracket **24** pivots, forcing locking arm **20** downwardly into opening **14** of buckle **13**, and thus, into a closed position. However, in contrast, locking arm **20** is secured to bracket **24** via locking arm fastening means **56**, which includes screw **58** and nut **59**. Fastening means **56** is disposed in the space between first and second extensions

21a, 21b, such that screw 58 is disposed substantially perpendicular to first and second extensions 21a, 21b and nut 59 is secured to an end of screw 58 and is adjacent to the top surface of locking arm 20. Mounting plate 43 secures buckle 13 to mount 26 via fastening means 42.

It should be appreciated that, any of the fastening or attachment means of the passenger restraint can be any suitable fastening means known in the art, such as but not limited to, screws, bolts, welds, etc.

The present invention also includes a method, the method having the following steps: inserting a tongue into an aperture of a buckle; applying an electrical signal to the power supply, which extends the rod; and pivoting the locking arm from an open position to a closed position. Additionally, after the tongue is inserted into the aperture of the buckle, signaling that the tongue is inserted into the buckle via a signaling source.

Thus, it is seen that the objects of the present invention are efficiently obtained, although modifications and changes to the invention should be readily apparent to those having ordinary skill in the art, which modifications are intended to be within the spirit and scope of the invention as claimed. It also is understood that the foregoing description is illustrative of the present invention and should not be considered as limiting. Therefore, other embodiments of the present invention are possible without departing from the spirit and scope of the present invention.

What is claimed is:

1. A passenger restraint, comprising:
  - a buckle, the buckle having a top surface, front surface and a button integral with the front surface, wherein the button is capable of being depressed;
  - a locking arm, wherein the top surface of the buckle includes an opening operatively arranged to receive the locking arm;
  - a power supply;
  - a bracket, wherein the bracket is secured to the locking arm;
  - a mount, wherein the power supply is secured to the mount and the bracket is secured to and pivotable about the mount;
  - a rod, wherein the rod is affixed to the bracket and the rod is secured to the power supply, and the locking arm is in an open position until an electrical signal from the power supply is applied, such that when an electrical signal is applied, the rod is operatively arranged to extend outwardly from the power supply, such that when the rod extends outwardly, the bracket pivots forcing the locking arm downwardly into the opening of the buckle and into a closed position.
2. The passenger restraint of claim 1, wherein the locking arm has first and second extensions, each extension extend-

ing outwardly therefrom, and first and second prongs, each prong extending downwardly from the first and second extensions, respectively.

3. The passenger restraint of claim 1, wherein the mount has first and second mount sides and at least one fastening means, wherein the power supply is secured to the mount and the bracket is secured to and pivotable about the mount via the at least one fastening means.

4. The passenger restraint of claim 1, wherein the rod is affixed to the bracket via a plate and the plate is disposed substantially perpendicular to the rod.

5. The passenger restraint of claim 1, wherein the power supply is a solenoid.

6. The passenger restraint of claim 5, wherein the solenoid is 12 volts.

7. The passenger restraint of claim 1, wherein the buckle further comprises a spring secured to the button and the button has a first position and a second position, such that in a resting state the button is in a first position, and when the button is depressed, it forms a second position, wherein when the button is released the spring returns the button to the first position.

8. The passenger restraint of claim 7, wherein when the locking arm is in a closed position, the button is incapable of being depressed.

9. The passenger restraint of claim 1, further comprising a belt and a tongue, wherein the tongue is secured to the belt.

10. The passenger restraint of claim 9, wherein the buckle further comprises a spring secured to the button and the button has a first position and a second position, such that in a resting state the button is in a first position and when the button is depressed, it forms a second position, wherein when the button is released the spring returns the button to the first position.

11. The passenger restraint of claim 10, wherein the front surface of the buckle further comprises an aperture and the aperture is capable of receiving the tongue, such that when the locking arm is in a closed position, the button is incapable of being depressed and the tongue is incapable of being removed from the aperture.

12. The passenger restraint of claim 11, further comprising a signaling source and the buckle further comprises at least one wire, such that when the tongue is inserted into the aperture, the tongue makes contact with the at least one wire, wherein the at least one wire is connected to the signaling source and the signaling source is operatively arranged to change state when the tongue is inserted into the aperture.

13. The passenger restraint of claim 12, wherein the signaling source has a first indicator when the tongue is inserted and a second indicator when the tongue is removed.

14. The passenger restraint of claim 13, wherein the first indicator is a green light and the second indicator is a red light.

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