Guardian of Peace-Taser Stun Gun
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Abstract. The origin of the early non-lethal weapons to protect themselves first and foremost, and secondly they do not want to harm innocent people, under the guidance of the design concept, the first to develop the necessary number of stun guns, while the Taser stun gun again produced by Thai Joseph gun most representative. From the first to the advent of the Taser now so popular in many countries, Tasers is unique in the field of non-lethal weapons. We believe in the future, adhering to the humanitarian spirit of the Taser will get better development, because the world will mainly develop non-lethal Taser weapons and better.

Introduction
In the eyes of a humanitarian, the best resolution of conflicts between people is to use non-violent way. However, in this age, many events can only rely on violence to deal with. The highest level of violence perhaps is to avoid deaths. The rapid development of non-lethal weapons has conformed to the trend of the times, and the theme of ‘war and peace’ in this time.

The Origin of Taser
The reason that early non-lethal weapons produced was in order to protect people, while did not hurt innocent people. Under the guidance of this design concept, stun gun was produced. Taser stun guns which produced by Taser Company was most typical. Taser Company was established in 1993, which was founded by Smith Brothers. Taser Company was founded as a result of criminal cases. In 1991, Rick Smith, a bus driver was killed by a frantic passengers while driving. This event caused a great shock for Smith Brothers. For security reasons, the Smith brothers bought a pistol to their mother for self-defense, but the good ones who were not willing to use weapons to kill people. Thus, the Smith brothers were on the initiation of an idea that to manufacture a non-lethal weapon. In 1993, the Smith brothers were accidentally encountered a Taser gun’s inventor Jack Carver. They three founded the Taser Company at the same year.

The Development of Taser Stun Gun
From pneumatic Taser to in M Series Advanced Taser which produced 1999, Taser Stun Gun Company has made great progress technology. However, The Taser series production really understood by people was when M26 applied in suppressing violent events. M26 is a new type of stun gun. After pulling the trigger M26 stun gun will emit two probes which connecting high-voltage wires. When the probe hit the target it will release 50,000 volts of strong currents immediately. Current can discharge the human body directly ignoring five centimeters thick clothes. It can push people into painful convulsions, loss of resistance. M26 also has shortcomings. It needs to use 8 AA batteries for power which will take up a lot of space. As a result, the gun is very long and inconvenient to carry. M26 stun gun had an outstanding performance in Ohio State Prison Riots. It quelled the situation quickly without killing people which won the praise of guards. From then M26 was obtained a wide range of using.

X26 is an upgrade version of M26. Its power is reduced to 5w. However, because it uses a pulse shaping technology, it can achieve the same attack effects of M26. Same as M26, X26 can also emit two high-voltage probes. When the probe hits the target, it releases a pulse to break the clothing,
then part of the energy to maintain this state. It makes X26 maintain the same attack effects with M26 but the volume is reduced by 60% because of this pulse shaping technology. X26 also has a great breakthrough on the power supply. It uses a dedicated battery powered. Lithium battery is in small size, light weight with long service life. Therefore X26 looks more humane. The handle design of X26 grip is also unique. The handle is very short very rough. If the user thinks the handle is too short, he can increase the length by fixing the pare bullets on the handle. It makes X26 have the ability of quick loading and shooting. X26 also adds a lot of additional features, including the gun rear panel provide immediate information on the battery charge and other features that people of concern, such as the gun’s body temperature when shooting. X26 monitor settings 5 seconds countdown function to facilitate the users to understand the shock time. X26 Taser stun gun is shown as Figure 1.

![Figure 1. X26 type Taser stun gun.](image)

Another new feature of X26 is that users can choose the lighting way. M26 Taser was emitting state, the laser sighting device will light simultaneously, and X26 allows the user to turn off the laser. X26 also has two light-emitting diodes, on or off as needed which provided for customers. Each lighting mode can control by a small button at the top arms, and related information through a display.

XREP was another masterpiece of Taser Company after X26 invented. The appearance of XREP shock bomb is very similar to 12 shotgun shells. The function is also similar to X26, which is to disable goals’ neuromuscular organization. The appearance of XREP directly improved the distance from 7 meters up to 30 meters. The reaction time increased from 5 seconds to 20 seconds. Not only did it increase the distance of the police operations, but also enhanced the combat capability. XREP was composed with three rotary wings, electrical pulse generator, cutting-edge electrode and Joe-Leah cactus thorn electrode. The shell of XREP is Transparent. XREP is shown as Figure 2.

![Figure 2. XREP shock bomb.](image)

When the warhead hit the body, four front end electrodes of the nose tip which is the first electrode transmission charge will penetrate into the human body. Due to the effect of impact energy, after the warhead hit the target with a few nanosecond, all the broken pins on the XREP are broken, the XREP chassis and the warhead section collapse dehiscence. At the same time, six
Joe-Leah cactus thorn electrodes unfold automatically; these electrodes and some wires will hang in
human body, penetrate clothes to become the second electrode of the spread of the charge, then
transferred to the first electrode along a strong electric pulse to the human body, so that the human
nervous muscle tissue dysfunction.

If these Joe-Leah cactus thorn electrode can’t immediately have an effect, XREP will also use the
human body was hit by the shock of the conditioned reflex to achieve connectivity. That is to say,
one will feel pain when hit by a XREP. The normal reaction is to catch by the bullet hit parts, trying
to get rid of XREP, In so doing, the electric pulse of the XREP passes through the front electrode,
the body of the hit person, and the hand of the hand of the XREP, and the electric pulse is
transmitted to the human body by the best effect, causing human nerve muscle tissue totally
disabled. In 2007, the XREP into human sample testing phase, 35 participants said: "after being
shot, muscle feeling is almost locked, unable to move, but stop shock, immediately can recover. If a
man was hit by a XREP, he would surrender."

Taser X3 stun gun marks another masterpiece of the firm’s market. By the design of the new X3
Taser gun body, intelligent shock bombs, enhanced power, display and control device is composed
of four parts. The gun increased structure and properties of new, comprises a pulse calibration
system, insurance device, double laser sight, cycle pulse drive, switching arc, tactical LED light,
self clear power contacts, etc.

X3 electric gun is made from a special polymer, can be used in high temperature and wet
environment. A closed circuit, ensure that the gun body is not disturbed by external electrostatic. X3
in use than the x26 forming pulse technology based on optimized cycle pulse technology, gun body
cycle pulse driver in accordance with the order of release composed of pulse shape, and cycling. In
this way, the X3 electric shock gun is equivalent to three independent X26 electric shock gun at the
same time effect, can strike three goals at the same time. The double laser aiming system of X3
electric shock gun can accurately detect the type of loading ammunition, adjust the angle of the
laser beam suitable for the corresponding ammunition, and improve the accuracy of shooting. X3
stun gun is equipped with a color display screen. Its status at any time will be displayed in the form
of icons, such as loading ammunition type, power, the use of the state, effective distance, etc.
Ammunition is divided into two types, one is the standard type of electric shock, the range near; the
other is a long-distance shock. X3 electric shock gun rely on its modern technology in terms of
security, reliability, combat capability has been significantly improved, in the future will certainly
be generous in the field of non-fatal luster. X3 Taser stun gun is shown as Figure 3.

![Figure 3. X3 type Taser stun gun.](image)

**Influence and the Future**

From the first Taser gun’s advent to now, Taser gun is so popular in many countries. The Taser is
unique in the field of non-lethal weapons. The use of Taser is not limited in the United States. Since
2004 the United Kingdom began to use Tasers. By 2012, Taser gun had play an important role in
more than 7,000 incidents. More and more countries saw an irreplaceable role in the war, security,
protection and other aspects of Taser play. Taser gun have been accepted by more and more
countries. At the end of 2015, there are already more than 20 countries’ police have been equipped
with its products. I believe in the future, adhering to the humanitarian spirit of the Taser will get
better development. The world will be better with the development of non-lethal weapons like Taser gun.

References


