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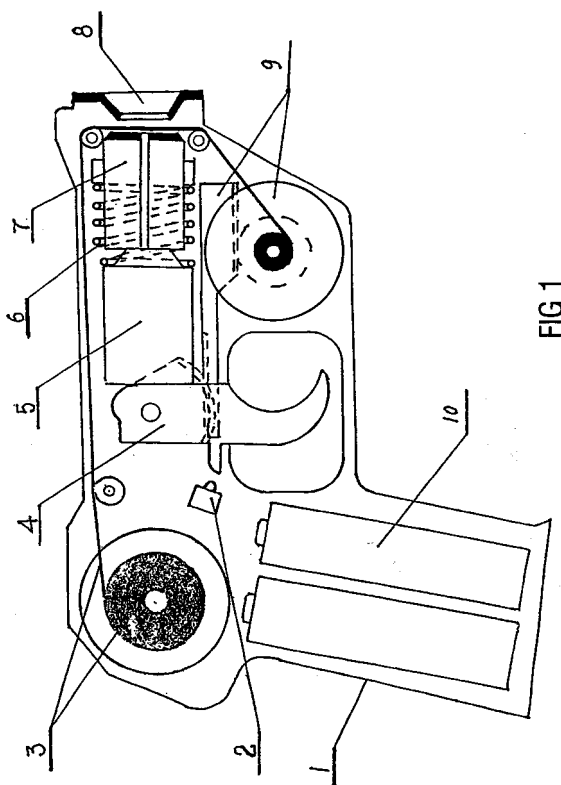
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(54) **DETONATION PRODUCING TOY DEVICE UTILIZING AIR PRESSURE**

(57) A detonation producing toy device utilizes air pressure. The device has a gun body in which an air pump, a seal body and a rolling mechanism are disposed. The air pump is integrated with the seal body. An elongate strip of rubber film from the rolling mechanism is pressed between the seal body and a gunpoint which

is at one end of the gun body. As a trigger of the device is fired, compressed air from the pump causes the film to expand outwards till it bursts, and at the same time detonation is produced. This interesting device is easy to operate, with simple structure, great safety and vivid vocal effect.



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Description

Technical Field

[0001] This utility model belongs to toy field, special concerns a toy device to produce detonation by pressing rubber film.

Background

[0002] The present air driving toy pistol or shooting bullet by air pressure or producing detonation by air driving, the effect is not good, and is not safe too.

Content

[0003] The purpose of this utility model is to provide a kind of method using pressing air acting on rubber film, make it expand till it bursts, so that can obtains better visual and vocal effect, and has not any harm.

[0004] To realize this utility model by following project:

[0005] A kind of detonation producing toy device utilizing air pressure, its character is: includes trigger mechanism, rubber film, air pump, seal body, gunpoint, rolling mechanism, when a trigger of the device is fired, air pump and seal body is pushed to make rubber film press fasten on gunpoint, power is on and drives air pump, presses air to rubber film, make it expand outwards of the gunpoint till it bursts; undo the trigger, power if off, all parts recover, under the action of recovering spring, the trigger provides new rubber film to gunpoint through rolling mechanism driven by gear, thus finish the shooting process, and repeat this process.

[0006] This interesting device is easy to operate, with simple structure, great safety.

Drawing description

[0007] FIG 1 is special structure explanation of the example of this utility model.

Special executive project

[0008] Following is detailed specification of best executive project of this utility model connected to the drawing:

[0009] As shown in the drawing, this utility model includes: gun body 1, power switch 2, rubber film 3, trigger mechanism 4, air pump 5, reposition spring 6, seal body 7, gunpoint 8, rolling mechanism 9, power 10. Gunpoint 8 is connected with gun body 1, power 10 is connected with air pump 5 through power switch 2, air pump 5 is connected with seal body 7, and glide in the slideway which set in the gun body 1, rolling mechanism 9 consists of gear, rack, driver wheel and driven wheel, when practicing this utility model, the trigger 4 is fired, cam part of the trigger pushes the air pump and seal body to gunpoint 8, clamps rubber film which is in the middle of

them, form round seal part, trigger 4 presses power switch 2 then drive air pump 5, the pressing air presses the rubber film in the round seal part through air hole in the middle of the seal body 7, makes the rubber film expand outwards of gunpoint 8 till it bursts, produces detonation, finish the shoot, when undo the trigger, the power is off, air pump stops its working, trigger recovers under the action of reposition spring, and pushes the driver and driven wheels of rolling mechanism, makes the detonated rubber film roll on the rolling mechanism, and pulls the new rubber film stored in the driven wheel to the gunpoint position at the same time, prepares for the next shoot.

[0010] Rolling mechanism 9 does not connect with trigger mechanism, but connects with gun bolt outside of gun body 1, which is used to pull gun bolt to work the rolling mechanism 9, realizes the pulling bolt and shoot.

Claims

1. A kind of detonation production toy device, its character is that it includes: gun body 1, power switch 2, rubber film 3, trigger mechanism 4, air pump 5, reposition spring 6, seal body 7, gunpoint 8, rolling mechanism 9, power 10.
2. Said as in claim 1, the detonation production toy device, its character is: the rubber film 3 is made of latex or synthetic rubber, the thickness is less than 1mm, formed into strip shape, and also can be compounded with plastic film, and it is set between seal body 7 and gunpoint 8, it is moved to gunpoint 8 by seal body 7, fastens the rubber film 3 into seal part.
3. Said as in claim 1, the detonation production toy device, its character is: upside of the trigger mechanism 4 is a cam shape, and pushes the air pump 5 and seal body 7 to gunpoint 8 by lever force, and recover under the action of reposition spring.
4. Said as in claim 1, the detonation production toy device, its character is: rolling mechanism 9 is made of driver wheel, driven wheel and transmission mechanism, rubber film 3 rolls on the driven wheel first, then connected to driver wheel, with the rotation of driver wheel, rolls the detonated rubber film onto the driver wheel in succession, and sends the new rubber film to the gunpoint at the same time.
Rolling mechanism 9 does not connect with trigger mechanism, but connects with gun bolt outside of gun body 1, which is used to pull gun bolt to work the rolling mechanism 9, this also belongs to this claim.

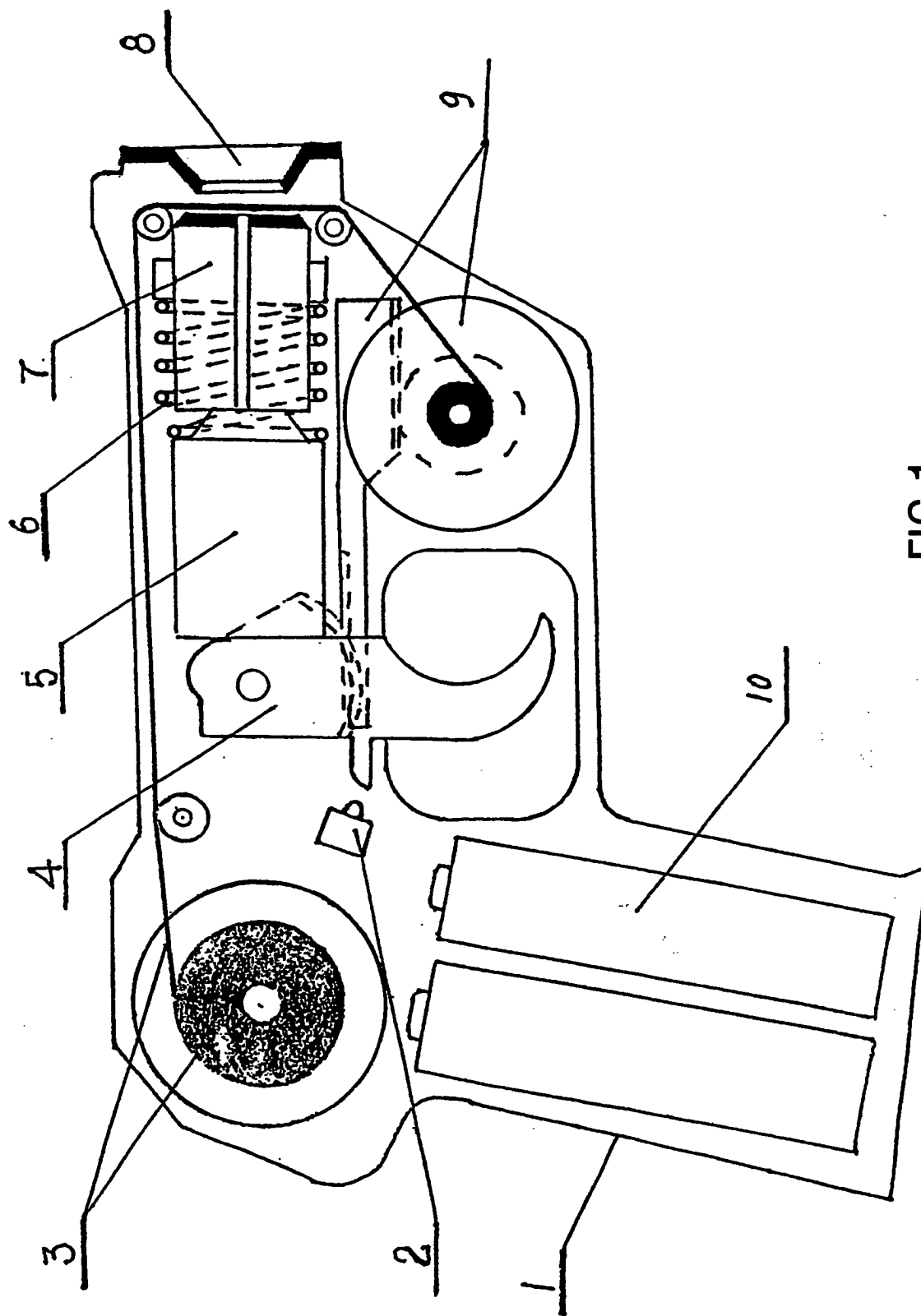


FIG 1

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER		
IPC ⁷ A63H 5/04		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
IPC ⁷ A63H 5/04, 5/00, 33/36, 33/40, 33/42		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 4109608 (Horikawa) 29. Aug 1978 (29. 08. 78) whole document	1-4
A	US, A, 4215512 (Philipson) 05. Aug 1980 (05. 08. 80) whole document	1-4
A	CN, Y, 2218013 (LIU, Yongzeng) 24. 1 月 1996 (24. 01. 96) whole document	1-4
☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
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Date of the actual completion of the international search 20. Oct 2003 (20. 10. 03)		Date of mailing of the international search report 13 NOV 2003 (13. 11. 03)
Name and mailing address of the ISA/CN 6 Xitucheng Rd., Jimen Bridge, Haidian District, 100088 Beijing, China Facsimile No. 86-10-62019451		Authorized officer  Telephone No. 86-10-62084759

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN03/00585

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CN, U, 2068411 (ZOU, Guoli et al) 02. Jan 1991 (02. 01. 91) whole document	1-4

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
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		JP, B, 59022538	28. May 1984
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CN, U, 2068411	02. Jan 1991	NONE	

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