Dec. 26, 1961 A. G. KIRETA 3,014,617

EJECTING CARTRIDGE CARRIER

Filed Feb. 25, 1959

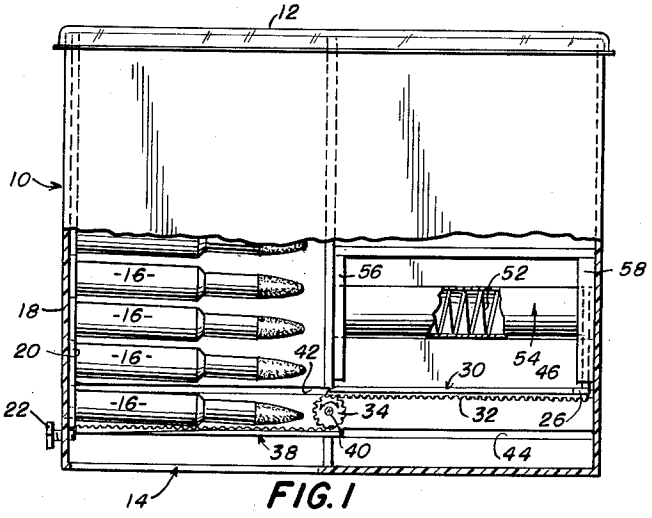


FIG. 1

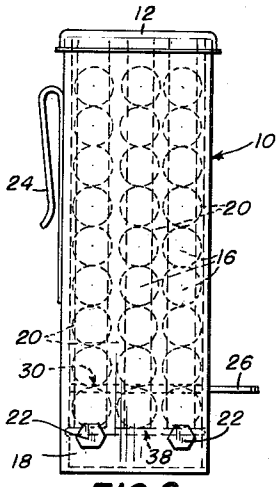


FIG. 2

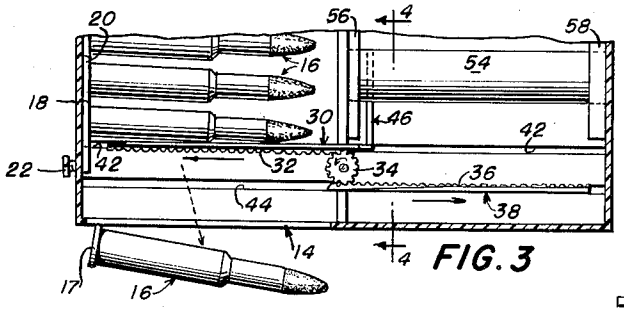
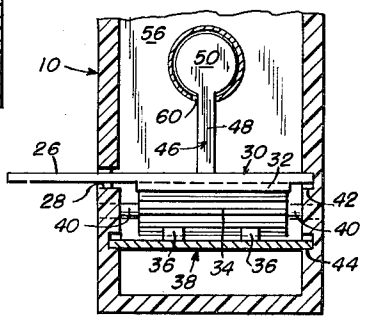


FIG. 3

FIG. 4



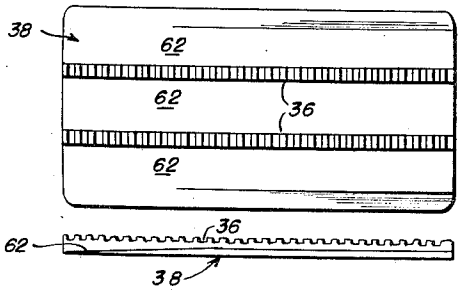


FIG. 5

FIG. 6

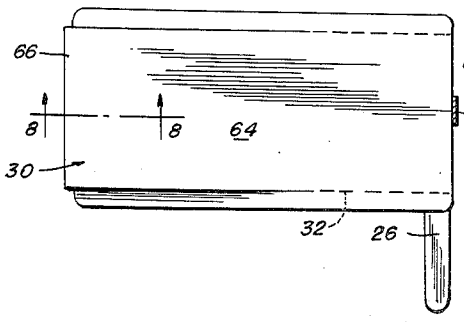
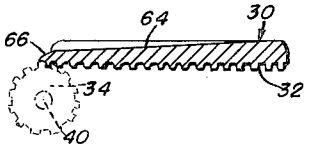


FIG. 7

FIG. 8



INVENTOR

ANDREW G. KIRETA

BY Beale & Jones

ATTORNEYS

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EJECTING CARTRIDGE CARRIER

Andrew George Kireta, Harrisburg, Pa.
(1610 H Ave., Lawton, Okla.)

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11 Claims. (Cl. 221—94)

This invention relates to cartridge carriers and more particularly to the portable selectively actuated cartridge dispensing type.

In the prior art, cartridge carriers are shown in which cartridges are arranged in staggered head-to-base fashion. When cartridges are dispensed from a carrier of this type, every other cartridge is in an improper position for loading into a firearm and as such, is very annoying. This is particularly annoying to hunters who find they must reload their firearms hurriedly in order to take advantage of particular situations.

It is a primary object of this invention to provide a cartridge carrier for dispensing cartridges to the user whereby the cartridges will be in the proper position for loading into the firearm.

Another object of this invention is to provide a dispensing cartridge carrier wherein a selected number of cartridges can be dispensed simultaneously.

Still another object of this invention is to provide a dispensing cartridge carrier having a strong operating mechanism with positive, trouble-free operating characteristics.

These and other objects of the invention will become apparent from the following specification and drawings.

In the drawings:

FIG. 1 is a side elevation of the cartridge carrier with a partial cross section shown;

FIG. 2 is an end view of the cartridge carrier;

FIG. 3 is a showing of the partial cross section of FIG. 1 during the dispensing operation;

FIG. 4 is a cross section taken along line 4—4 of FIG. 3;

FIG. 5 is a detailed view of a component of the dispensing mechanisms shown in FIGS. 1, 3 and 4;

FIG. 6 is a side elevation of FIG. 5;

FIG. 7 is a detailed view of a component of the dispensing mechanisms shown in FIGS. 1, 3 and 4; and

FIG. 8 is a detailed view of a component of the dispensing mechanisms shown in FIGS. 1, 3 and 4.

Basically, the cartridge carrier comprises a plurality of vertical channels having inturned flanges which are designed to slidably engage the rim at the base of a cartridge case and support the cartridge in a horizontal position at substantially right angles thereto.

Parallel channels are provided to hold a plurality of cartridges in separate columns. Thumb screws are provided at the base of the channels to selectively block the channels to control the number of cartridges ejected therefrom.

The dispensing mechanism comprises a spring biased double-rack and pinion arrangement wherein one rack supports the lowermost cartridge in the channels when they are not being dispensed. When dispensing a cartridge, however, the supporting rack moves out from under the lowest cartridge to dispense same by gravity while another rack acts to retain the remaining cartridges in the carrier.

Referring in detail to the drawings and more particularly to FIGS. 1 and 2, the cartridge carrier is shown to comprise an outer casing **10** having an open top covered with a transparent cover **12**. A cartridge dispensing opening **14** is provided in the bottom of the casing **10**.

A plurality of cartridges **16** are arranged single file in a plurality of vertical columns with the rimmed base portion **17** of the cases against one end wall **18** of the casing **10**. Mounted on the end wall **18** are a plurality of parallel vertically disposed cartridge retaining channels **20**. The channels have a generally squared U-shaped cross-section with inturned flanges dimensioned to slidably receive the rimmed bases **17** of the cartridges **16**. As a result, the cartridges **16** are held substantially perpendicular to the end wall **18** by the retaining channels **20**.

In the embodiment shown, a pair of selectively adjustable thumb screws **22** are threaded through the end wall **18** of the casing **10** and pass beneath the two outer channels **20** immediately adjacent the lower ends thereof. These screws may be selectively adjusted to prevent either one or both of the outer columns of cartridges from being dispensed by effectively blocking the exit end of the outer channel **20**. The central channel and its corresponding column of cartridges are, in the embodiment shown, left in an unblocked dispensing condition at all times.

The cartridge carrier is made for attachment to a belt or pocket by means of spring clips **24** as shown in FIG. 2.

Referring to FIGS. 1, 2, 3 and 4, the cartridge dispensing mechanism is shown to comprise an actuating handle **26** which projects through a slot **28** in one side wall of the outer casing **10**. The actuating handle **26** forms an integral part of an upper rack **30** having gear teeth **32** on the lower surface thereof. The gear teeth **32** are adapted to intermesh with the teeth of a pinion or idler gear **34**. The gear **34** in turn, is intermeshed with the gear teeth **36** on the upper surface of a lower rack **38**.

As shown in FIG. 4, the idler gear **34** is mounted for rotation about an axis perpendicular to the long dimension of the outer casing **10**. A central shaft **40** extends through the gear **34** and is held in suitable bearing slots in the side walls of the outer casing **10**.

The upper and lower racks **30** and **38** are slidably supported in parallel bearing slots **42** and **44**, respectively, in the side walls of the casing **10** whereby both racks are mounted to slide substantially the entire length of the casing **10**.

Located at the end of the upper rack farthest from the channels **20** on the end wall of the casing **10**, and extending perpendicular to the upper surface thereof, is a spring follower **46**. The follower has a narrow shank **48** and an enlarged upper portion **50** for engaging a spring.

A compression spring **52** extending longitudinally of the outer casing **10** is enclosed in a cylindrical tube **54** which is mounted between a central partition **56** in the casing **10** and the other end wall **58** of the casing **10**. The tube **54** is at least as long as and parallel to the upper rack **30** and contains a slot **60** (FIG. 4) which runs the entire length thereof. The slot **60** is positioned to receive the thin shank portion **48** of the spring follower **46**. The enlarged end portion **50** of the spring follower is enclosed in the cylindrical tube **54** between the end wall **58** of the casing **10** and the corresponding end of the compression spring **52**.

The lower rack **38** is shown in detail in FIGS. 5 and 6 and comprises a flat generally rectangular plate having a plurality of rows of gear teeth **36** on the upper face thereof. The remainder of the upper surface comprises smooth uninterrupted parallel surface portions **62** which are dimensioned such that a cartridge may rest thereon without coming into contact with the gear teeth **36** and thereby become scarred or otherwise defaced. As shown in the side elevation in FIG. 6, the smooth surfaces **62** increase in

thickness from left to right so that a cartridge resting thereon with the large dimension or base on the left, will be held in a substantially horizontal position.

The upper rack **30** is shown in FIGS. 7 and 8 as having a smooth upper surface **64** which is increased in cross sectional thickness from left to right in a manner similar to the surfaces **62** of the lower rack **38**. The left hand edge **66** of the upper rack **30** is formed with a rounded edge so as to avoid scarring or defacing the soft noses of hunting bullets or the like.

The cartridge dispensing operation is as follows:

Initially, the dispensing mechanism is in the position shown in FIG. 1 with the upper rack **30** on the right and out of contact with the cartridges **16**. The lower rack **38** is on the left and acts as a supporting shelf for the columns of cartridges **16**, the lowermost cartridge in each column resting on the smooth parallel surfaces **62** on the upper surface of the lower rack **38**.

The cartridges **16** are slidably retained in the vertical channels **20** by means of their rimmed bases **17** such that the removal of the lower rack **38** from beneath the cartridges **16** will allow them to slide down the channels **20** by force of gravity and drop through the dispensing opening **14** in the outer casing **10**. As described above, the two outermost channels **20** may be selectively blocked by thumb screws **22** such that one, two or three cartridges may fall from the bottom of the channels **20** at the same time.

After the thumb screws **22** have been properly adjusted for the desired number of cartridges, the actuating lever **26** on the upper rack **30** is pulled from right to left until it reaches the position shown in FIG. 3. As a result, the gear teeth **32** on the lower surface of the upper rack **30** engage the pinion or idler gear **34** and drive the gear counterclockwise as shown. The idler gear **34** is also engaged with the parallel tracks of gear teeth **36** on the upper surface of the lower rack **38** and as a result of the counterclockwise rotation of the idler gear **34**, the lower rack **38** is moved from left to right to the final position shown in FIG. 3. The lower rack **38**, therefore, is moved out from under the lowermost cartridges **16** in the vertical columns, allowing them to drop out of the dispensing opening **14** in the outer casing **10**.

At the same time that the lower rack **38** is moving out from under the lowermost cartridges, the upper rack **30** is moving between the lowermost and next highest layer of cartridges. In this way, only the lower cartridges are dispensed as the upper rack **30** retains the remainder of the cartridges on its upper surface **64**.

For a right-handed person, the dispensing cartridge carrier is attached to a belt or pocket on the right side of the wearer by means of the spring clips **24** shown in FIG. 2. The thumb of the right hand is hooked around the actuating lever **26** and the fingers are curled down and under the bottom of the casing **10** so that they will receive and retain dispensed cartridges. The actuating lever **26** is moved from front to back with reference to the body of the wearer and when the position shown in FIG. 3 is reached, the cartridges **16** will drop through the dispensing opening **14** and into the hand of the wearer, whereby they will be properly oriented for immediate loading into a firearm.

When the lever **26** is moved to dispensing position, the spring follower **46** on the upper rack **30** compresses the compression spring **52**. Thus, when the actuating lever **26** is released, the spring **52** drives the spring follower **46**, upper rack **30**, idler gear **34** and lower rack **38** back to their normal positions shown in FIG. 1.

The return of the upper and lower racks allows the columns of cartridges **16** to drop from the level of the upper rack **30** down onto the supporting surfaces **62** on lower rack **38**. The cartridge carrier is now in position for another dispensing operation.

As the total number of cartridgs in the carrier is decreased, the supply may be replenished by removing the transparent plastic top and inserting the rimmed bases **17** of fresh cartridges **16** into the top of the vertical channels **20** whereby they will slide down to rest on top of the cartridges already contained in the carrier.

In order to make the cartridge carrier adaptable to various calibers, the channels **20** may be removably mounted on the end wall **18** of the casing **10** so that channels dimensioned for various cartridge sizes may be inserted.

As can be seen from the above description and drawings, my invention satisfies a long felt need in the art for a cartridge carrier and dispenser which is simple and rugged in construction with a reliable and positive mode of operation. The device is readily attached to the clothing of the wearer and dispenses a selected number of cartridges in correct position for rapid reloading of a firearm.

It is to be understood that the embodiment shown is for the purpose of example only and is not to be taken as the sole form of this invention in that other embodiments and modifications thereof will fall within the scope of the appended claims.

I claim:

1. In a cartridge carrier, for dispensing cartridges, dispensing means comprising in combination, upper and lower elongated parallel cartridge supporting means, an elongated resilient biasing means adapted to be compressed along an axis parallel to said cartridge supporting means, means mounted on one of said cartridge supporting means for engaging said elongated biasing means to compress said biasing means in response to a particular direction of motion of one of said cartridge supporting means and motion transmitting means interconnected between said upper and lower elongated cartridge supporting means whereby the motion of one of said supporting means in one direction produces motion of the other of said supporting means in the other direction, said biasing means being compressed in one direction between a first and second position of said supporting means and acting to return said supporting means from said second position to said first position in the opposite direction of motion.

2. The device as described in claim 1 wherein said motion transmitting means comprises an idler gear.

3. In a cartridge carrier for dispensing cartridges, in combination, holding means for retaining a plurality of vertical columns of horizontally disposed cartridges and providing vertical sliding movement of said cartridges in said holding means, selective stop means at the lower end of each of said vertical columns for preventing selected columns from dispensing the cartridges therein, upper and lower support means separate from said selective stop means for alternately supporting said cartridges in each vertical column, said upper support means being spaced from said lower support means such that a cartridge supported by said lower support means will not come in contact with the lower surface of said upper support means, said cartridge support means being movable from first and second extreme positions whereby movement to said first position places said lower support means beneath the bottom-most cartridges in said vertical columns to prevent dispensing of same while said upper support means is disposed parallel to but completely offset from said lower support means outside of the volume occupied by said vertical columns and movement to said second position places said upper support means beneath the cartridges vertically adjacent said bottom-most cartridges to prevent same from dispensing and removes said lower support means from beneath said bottom-most cartridges to thereby allow said bottom-most cartridges to be dispensed.

4. In a dispensing cartridge carrier, an outer casing, a dispensing opening in the bottom of said casing whereby dispensed cartridges may be dropped therethrough, a first linearly movable and elongated cartridge supporting means mounted interior of said casing for selectively opening and closing said dispensing opening, a second linearly

movable and elongated cartridge supporting means mounted parallel to and vertically displaced from said first supporting means such that motion of said supporting means to open said dispensing opening produces motion in said second supporting means in the opposite direction to directly close said opening, holding means for retaining a vertical column of horizontally disposed cartridges and providing vertical sliding movement of cartridges carried therein, the lowermost cartridge carried by said holding means being supported directly on said first supporting means when the dispensing opening is closed thereby and the next highest cartridge therein being supported by said second supporting means when said first supporting means is moved to open said dispensing opening and thereby dispense said lowermost cartridge and selective stop means separate from said first and second movable support means and positioned at the lower end of each vertical column holding means for preventing selected columns from dispensing the cartridges therefrom.

5. In a cartridge carrier for dispensing cartridges in combinations, a holding means for retaining a plurality of vertical columns of horizontally disposed cartridges and providing vertical sliding movement of said cartridges therein, said holding means for said cartridges comprising a vertical channel member having inturned flanges for slidably gripping the rimmed bases of the cases of said cartridges for maintaining said cartridges substantially perpendicular to said channel and allowing vertical sliding movement of said cartridges in said channel, and movable support means for said cartridges located beneath the lowermost cartridge in said vertical column whereby removal of said support means from beneath said cartridges will allow them to slide down said channel by the action of gravity and be dispensed therefrom.

6. In a cartridge carrier for dispensing cartridges in combination, holding means for retaining said cartridges in a vertical column and horizontally disposed comprising a vertical channel member having inturned flanges for slidably gripping the rimmed bases of the cases of said cartridges for maintaining said cartridges substantially perpendicular to said channel and allowing vertical sliding movement of said cartridges in said channel, selectively actuated locking means in said channel adjacent the lowermost end thereof for selectively preventing the cartridges from sliding down said channel, and movable support means for said cartridges located beneath the lowermost cartridge in said vertical column whereby removal of said support means from beneath said cartridges will allow them to slide down said channel by the action of gravity and be dispensed therefrom.

7. A cartridge carrier for dispensing cartridges comprising in combination holding means for retaining a vertical column of horizontally disposed cartridges and providing vertical sliding movement of said cartridges in said holding means, upper and lower linear movable support means for alternately and directly supporting said cartridges and a rotary driving connection between said upper and lower support means and driven by said upper support means whereby motion of said upper support means in one direction actuates said driving interconnection to move said lower support means in the opposite direction, each of said support means comprising a generally rectangular plate movable in the general direction in which said cartridges extend, said plate being increased in thickness from the end of said plate supporting the base of one of said cartridges to the other end of said plate whereby a cartridge having a tapered case will rest thereon in a horizontal position.

8. The device as described in claim 7 wherein there is a plurality of holding means for retaining vertical columns of horizontally disposed cartridges and wherein said lower support means comprises a generally rectangular plate having alternate parallel rows of gear teeth and smooth surfaces, respectively, on the upper surface thereof running longitudinally of said plate whereby a plurality of cartridges may be supported on said plate on said smooth surfaces intermediate said parallel rows of gear teeth.

9. In a cartridge carrier for dispensing cartridges, dispensing means comprising in combination, upper and lower elongated parallel cartridge supporting means, resilient biasing means adapted to be compressed along an axis parallel to said cartridge supporting means, means mounted on one of said cartridge supporting means for engaging said biasing means to compress said biasing means in response to a particular direction of motion of one of said cartridge supporting means and motion transmitting means interconnected between said upper and lower elongated cartridge supporting means whereby the motion of one of said supporting means in one direction produces motion of the other of said supporting means in the other direction, said biasing means being compressed in one direction between a first and second position of said supporting means and acting to return said supporting means from said second position to said first position in the opposite direction of motion, said upper cartridge supporting means comprising a rack having transverse gear teeth on its lower surface for engaging said motion transmitting means and a smooth upper surface for supporting cartridges and a follower means mounted on one end of said rack substantially perpendicular to the upper surface thereof for engaging said resilient biasing means to compress the same.

10. The device as described in claim 9 wherein there is a plurality of holding means for retaining vertical columns of horizontally disposed cartridges and wherein said lower cartridge supporting means comprises a generally rectangular plate having alternate parallel rows of gear teeth and smooth surfaces, respectively, on the upper surface thereof running longitudinally of said plate whereby a plurality of cartridges may be supported on said plate on said smooth surfaces intermediate said parallel rows of gear teeth.

11. In a cartridge carrier for dispensing cartridges, in combination, holding means for retaining a plurality of vertical columns of horizontally disposed cartridges and providing vertical sliding movement of said cartridges in said holding means, selective stop means at the lower end of each of said vertical columns for preventing selected columns from dispensing the cartridge therein, upper and lower support means separate from said selective stop means for alternately supporting said cartridges in each vertical row, said upper support means being spaced from said lower support means such that a cartridge supported by said lower support means will not come in contact with the lower surface of said upper support means, said cartridge support means being movable from first and second extreme support positions whereby movement to said first position places said lower support means beneath the bottom-most cartridges in said vertical columns to prevent dispensing of some while said upper support means is disposed parallel to but completely offset from said lower support means outside of the space occupied by said vertical columns, and movement to said second position places said upper support means beneath the cartridges vertically adjacent said bottom-most cartridges to prevent same from dispensing and removes said lower support means from beneath said bottom-most cartridges whereby to allow said bottom-most cartridges to be dispensed, said holding means for said cartridges comprising parallel vertical channels having inturned flanges for slidably gripping the rimmed bases of the cases of said cartridges and supporting said cartridges substantially perpendicular to said channels and parallel to said upper and lower support means whereby removal of said support means from beneath said cartridges will allow them to slide down said channels by the action of gravity and be dispensed therefrom.

(References on following page)

References Cited in the file of this patent

UNITED STATES PATENTS

427,093	Lennon	May 6, 1890
558,057	Ferguson	Apr. 14, 1896
984,223	Jones	Feb. 14, 1911
1,816,341	Petersen	July 28, 1931
2,553,535	Petrie	May 15, 1951
2,870,937	Telley	Jan. 27, 1959

FOREIGN PATENTS

8,964	Great Britain	Apr. 19, 1904

UNITED STATES PATENT OFFICE

CERTIFICATION OF CORRECTION

Patent No. 3,014,617 December 26, 1961

Andrew George Kireta

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 6, line 56, for "some" read -- same --.

Signed and sealed this 24th day of April 1962.

(SEAL)
Attest:

ESTON G. JOHNSON
Attesting Officer

DAVID L. LADD
Commissioner of Patents