June 21, 1927. 1,633,361

N. BRYANT

CORD ACTUATED BURGLAR ALARM

Filed Dec. 21, 1925

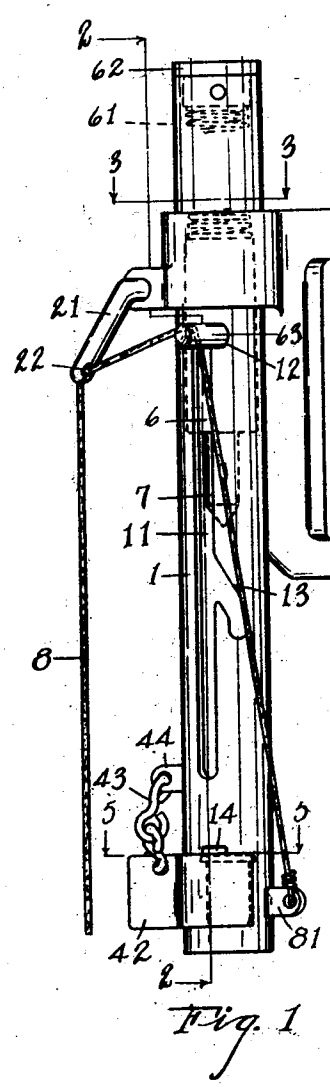


Fig. 1

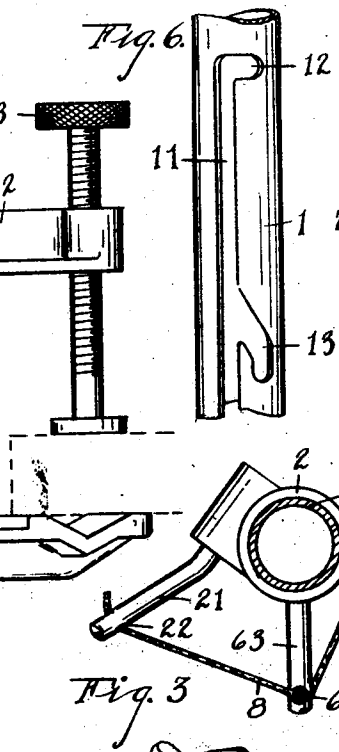


Fig. 3

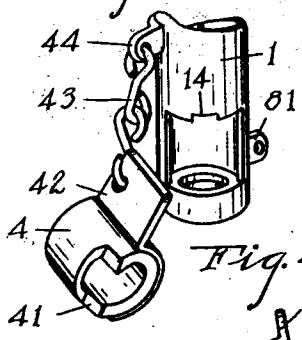


Fig. 4

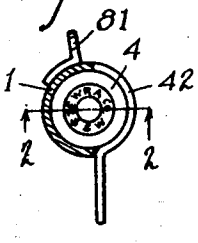


Fig. 5

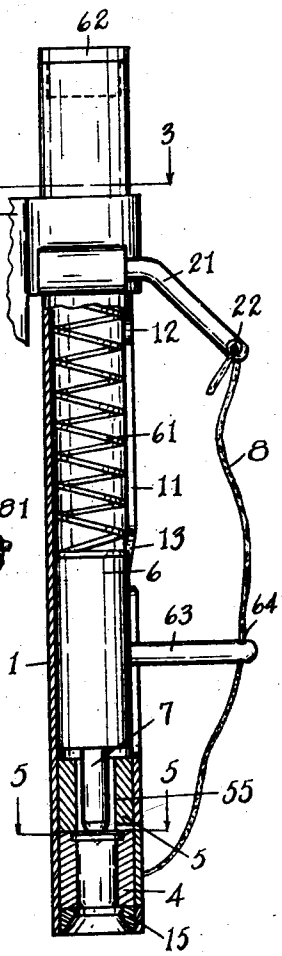


Fig. 2

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UNITED STATES PATENT OFFICE.

NILES BRYANT, OF BATTLE CREEK, MICHIGAN.

CORD-ACTUATED BURGLAR ALARM.

Application filed December 21, 1925. Serial No. 76,785.

The objects of the invention are:

First, to provide a structure which is very simple and efficient.

Second, to provide an improved and effective cartridge chamber block.

Third, to provide an improved firing bolt.

Fourth, to provide an improved control for the firing bolt.

Objects pertaining to details and economies of my invention will definitely appear from the detailed description to follow. The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing forming a part of this application, in which:

Fig. 1 is an elevation view, substantially full size, of my improved burglar alarm, the position of the firing bolt, spring and cartridge being indicated by dotted lines.

Fig. 2 is a longitudinal sectional view, parts being shown in full lines, taken on the irregular line 2—2 of Figs. 1 and 5.

Fig. 3 is a transverse sectional plan view taken on line 3—3 of Figs. 1 and 2 showing the relation of the cord to the cross pin and guides.

Fig. 4 is a detail perspective view of the lower end of the barrel with the cartridge chamber block removed.

Fig. 5 is a detail transverse sectional view taken on line 5—5 of Figs. 1 and 2 showing details of the removable cartridge chamber block and the manner of holding it in place by engagement with the tube wall.

Fig. 6 is a detail elevation view of the barrel showing the cocking notch and safety catch for the cross pin of the firing bolt.

The parts of the drawing will be designated by their numerals which are the same throughout all the views.

1 is the barrel. 2 is the clamp with screw 3 for securing the same in position on any support. 4 is the removable cartridge chamber having a cylindrical body retained in the lower end of the barrel and suitably grooved to receive an ordinary thirty-two caliber blank cartridge. This is suitably notched at 41 to facilitate the removal of the empty cartridge shell. It is provided with an ear 42 for attachment by a chain 43 to an eye 44 on the side of the barrel.

The cartridge chamber is retained in the lower part of the barrel or tube 1 by friction, the notch across the barrel to permit the introduction of the cartridge chamber not reaching quite to the center and allowing the side walls to yield on the insertion of the cartridge chamber and engage frictionally on the opposite sides of the removable cartridge chamber 4.

The breech block 5 is stationary in the tube and has a central bore 55 for the passage of the firing pin which is on the end of the firing bolt 6. The firing bolt 6 is actuated by the compressible coiled spring 61 which is retained by the end plug or cap 62. A longitudinal slot 11 is in the side of the tubular barrel affording a guide for the cross pin 63 of the bolt 6 which has a vertical eye 64 at its outer end for the trip cord 8.

A notch 12 is at the upper end of the slot 11 into which the pin 63 is pushed when the bolt is cocked. A pin 21 secured to the bracket 2 is disposed in angular relation to the cross pin 63 when it is in its cocked position. The trip cord 8 extends through the eye in the pin 21 down through the vertical aperture 64 in the cross pin 63 and is connected to the eye 81 at the lower end of the barrel 1.

From what has been said it will be seen that when the structure is cocked and a cartridge is put in place, if there is a pull on the cord 8 it will act to swing the cross pin 63 to one side and disengage the same from the notch 12, allowing the spring to project the bolt 6 downwardly and drive the firing pin 7 against the cartridge and discharge it. The bolt can then be withdrawn to the safety position and engaged in the safety notch 13. The cartridge chamber block 5 can then be thrown out of position and the contained cartridge readily removed by engagement of the edge thereof at the notch 41.

A small notch 14 is formed at the lower end of the breech block 5 to clear the exploded cap in the cartridge shell. A ring collar 15 is in the lower end of the barrel and is so formed that it is impossible to load this alarm with a loaded shell. Only a blank will be taken in.

I have described my improved structure in the form preferred by me but it can of course be considerably modified without departing from my invention. I desire to claim the same specifically as well as broadly as pointed out in the appended claims.

Having thus described my invention what

I claim as new and desire to secure by Letters Patent is:

1. In a burglar alarm, the combination of a tubular barrel, a longitudinal slot with cross cocking notch and oblique safety catch notch, a firing bolt and firing pin with a spring for actuating the same within said barrel and a cross trip pin with vertical eye at its outer end on the bolt adapted to reciprocate in the longitudinal slot and engage the said notches, a removable cartridge chamber block at the lower end of said barrel, a cross pin or guide with an eye in its end carried by said barrel and disposed in angular relation to the trip pin when cocked, and a trip cord disposed through the said guide eye through the said trip pin and secured to the bottom of the barrel, all coacting substantially as described for the purpose specified.

2. In a burglar alarm, the combination of a tubular barrel, a longitudinal slot with cross cocking notch, a firing bolt and firing pin with a spring for actuating the same within said barrel and a cross trip pin with eye at its outer end on the bolt adapted to recopricate in the longitudinal slot and engage the said notch, a removable cartridge chamber block at the lower end of said barrel, a cross pin or guide with an eye in its end carried by said barrel and disposed in angular relation to the trip pin when cocked, and a trip cord disposed through the said guide eye through the said trip pin and secured to the bottom of the barrel, all coacting substantially as described for the purpose specified.

3. In a burglar alarm, the combination of a tubular barrel with a notch and lateral recess at the lower end, said notch of less than half the diameter of said barrel, a breach block above said recess, a firing bolt and firing pin with a spring for actuating the same within said barrel, a removable cylindrical cartridge chamber block detachably aranged in the lower end of said barrel and adapted to be forced into said recess through said notch and frictionally engaged and retained by the wall thereof engaging more than half the circumference of said block, and trip means for said bolt, all coacting substantially as described for the purpose specified.

In witness whereof I have hereunto set my hand.

NILES BRYANT.