

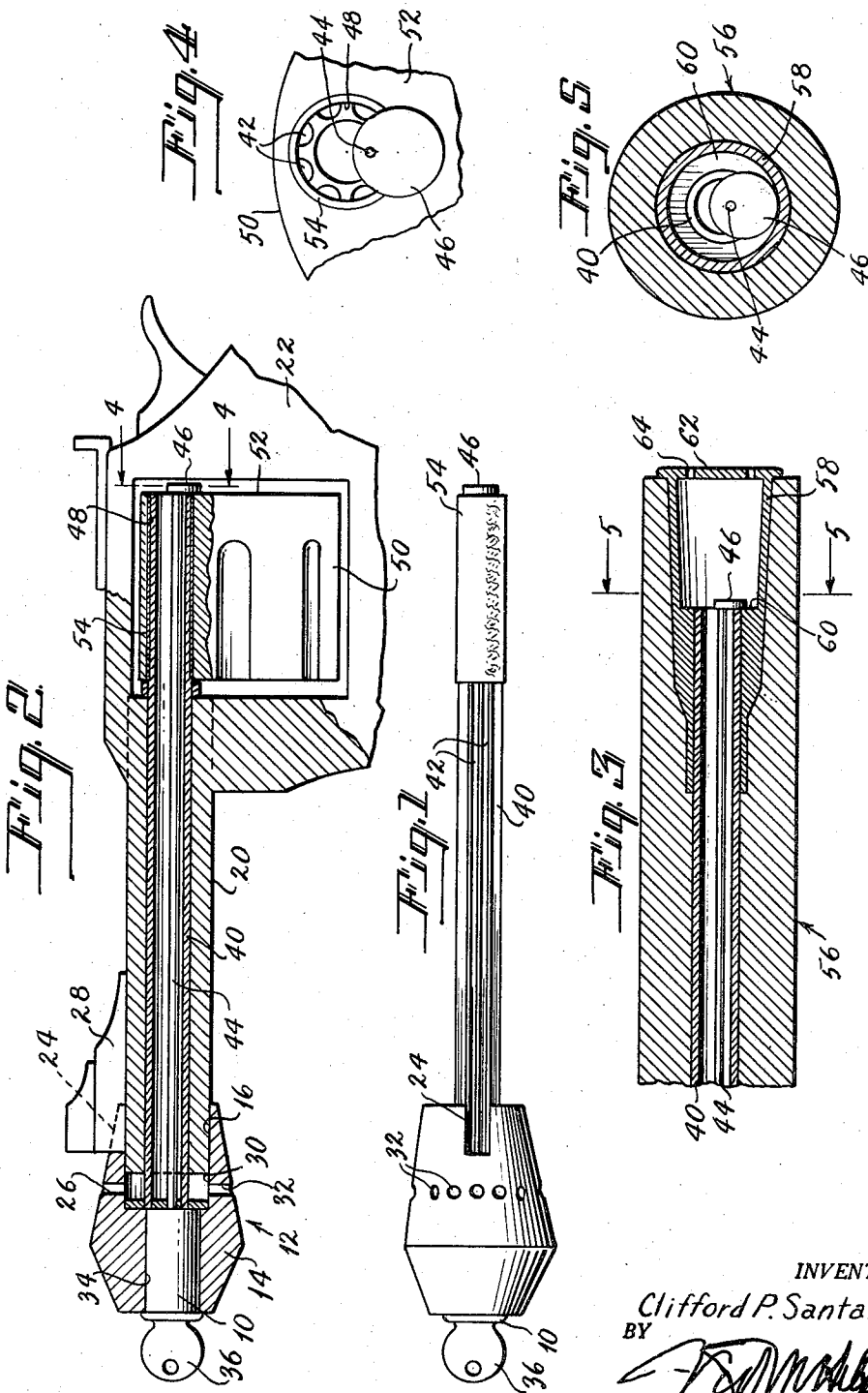
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FIREARM LOCKING DEVICE

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FIREARM LOCKING DEVICE

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The present invention relates to a locking device for use in association with a firearm, for locking the firearm against inadvertent discharge and against tampering by persons unauthorized to use the same.

An object of the present invention is to provide a firearm locking device of the character described which may be easily and quickly assembled with a firearm for locking the same and just as easily and quickly removed therefrom by the person in possession of the key thereto.

It is also an object of the present invention to provide a firearm locking device of the character described which is firmly and securely fixed and held in place upon the firearm to render it undischageable and is substantially proof against removal without a key and against tampering even with the use of force.

It is another object of the present invention to provide a firearm locking device of the character described which will permit the ventilation of the barrel of the firearm, even when locked in place thereon, to prevent "sweating" and resulting rusting and deterioration of the firearm barrel.

It is a further object of the present invention to provide a firearm locking device of the character described which is of relatively simple construction and relatively economical to produce and simple to use, to thereby make its adoption and use economical and practical and thereby greatly reduce destruction of life incidental to accidental and unauthorized use of the firearm.

The foregoing and other objects and advantages of the firearm locking device of the present invention will become more readily apparent to those skilled in the art from the embodiments thereof shown in the accompanying drawing and from the description following. It is to be understood, however, that such embodiments are shown by way of illustration only, to make the principles and practice of the invention more readily comprehensible, and without any intent of limiting the invention to the specific details therein shown.

In the drawings:

Fig. 1 is an elevational view of one embodiment of a firearm locking device of the present invention;

Fig. 2 is an elevational and partly sectional view of the firearm locking device of Fig. 1; shown as mounted in locking position upon a revolver;

Fig. 3 is a fragmentary, sectional and partly elevational view showing the firearm locking device of the present invention as used in association with a rifle;

Fig. 4 is a section taken on line 4—4 of Fig. 2; and
Fig. 5 is a section taken on line 5—5 of Fig. 3.

Referring now in greater detail to the illustrative embodiments of the invention shown in the accompanying drawing, the locking device of the present invention comprises a cylinder lock 10, disposed in a housing, generally designated as 12. The housing comprises a solid metallic block 14, of any suitable metal conventionally used for the purpose, of preferably circular cross section and preferably thickest at a central point of its length from which it tapers toward each end, to provide

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an outer surface that will tend to deflect any hammer or like blows that may be applied for lock breaking or removing purpose.

The inner portion of the housing block 14 is formed with a preferably centrally disposed longitudinally extending cylindrical bore 16, adapted to fit snugly over the end of the barrel 20 of a firearm, such as a revolver 22, with which it is intended to be associated, and the wall of the bore 16 is provided at the top thereof, with a slot 24, extending longitudinally inwardly to a point short of the inner wall 26 of the bore 16, to accommodate the firearm sight 28, near the end of the barrel 20. The length of the bore 16 and slot 24 are relatively such that when the end of the slot 24 abuts the outer end of the sight 28, the end of the barrel 20 which is fitted into the bore 16 will terminate short of the inner wall 26 of the latter, to leave an air space 30, at the inner end of the bore 16, in the wall portion of which are formed a plurality of radially extending air admitting apertures 32.

A cylindrical bore 34, of lesser diameter than the bore 16, is formed in the outer portion of the housing block 14, communicating with the bore 16 but slightly eccentric relative thereto in a direction diametrically opposite the slot 24, in which is accommodated the lock cylinder 10, which may be of any conventional tumbler type, having a key rotated central rod or core, but preferably of a type from which the operating key 36, may not be removed when the lock is in open position. Such locks are conventional and not thought necessary to be shown in detail.

Secured within the bore 16, by one end thereof, is an elongated tubular sleeve 40, of an outer diameter equal substantially to the diameter of the bore of the firearm barrel 20, with which the device is to be used. The sleeve 40 is secured substantially centrally within the bore 16, in any suitable manner, as against the inner wall 26 thereof, so that it is eccentric to the cylinder lock 10. The sleeve 40 is preferably provided with flutings 42, on its outer surface which permit the circulation and passage of air from the space 30 into the interior of the barrel 20 into which the sleeve 40 is inserted. Preferably, the flutings 42 may be interrupted or broken at spaced intervals of their length, to permit improved air circulation by permitting passage or interchange of air between the several flutings 42.

A metal rod 44 is disposed within the sleeve 40, its inner end suitably and operatively connected to the rod of the cylinder lock 10, so that the rod 44 is eccentrically disposed within the sleeve 40. The rod 44 is co-extensive in length with the sleeve 40 and extends slightly beyond it and has mounted eccentrically on its outer end, exteriorly of the sleeve 40, and flush against its end a metallic disk 46.

The sleeve 40 may be of any desired length suitable for the particular firearm for which it is to be used. Thus in the revolver illustrated, the sleeve is of sufficient length to extend inwardly through the barrel 20 and through a registering chamber 48, of the revolver cylinder 50, so that when the locking device is placed in position upon the end of the barrel 20, the inner end of the sleeve 40 will terminate co-extensively with the inner end of the revolver cylinder 50, so that when the key 36 is turned to locking position the rod 44 will be rotated to move the cam disk 46 from position of register with the end of the sleeve 40 into an eccentric position out of register therewith and into engagement with the inner face 52 of the revolver cylinder 50, whereby the locking device becomes securely engaged upon the revolver to prevent rotation of the cylinder 50 and the firing of any of its bullets. It is to be understood, of course,

that before the device can be used to lock the firearm, the bullet from the registering cylinder chamber 43 must first be removed.

If desired, the locking device may be provided with means for moisture proofing the interior of the barrel 20 and, especially of the cylinder chamber 48 in which it is engaged. This may be effected by reducing the exterior diameter of the portion of the sleeve 40 entering the chamber 48 and mounting thereon a thin layer 54, of absorbent material, such as felt or the like, which is impregnated with a silicone substance that, unlike oil, makes the surface with which it contacts not merely coated but water repellent. The felt tube 54, may be set directly on the sleeve 40, but preferably on a thin metallic tube 52 which mounts the sleeve 40 and may be secured thereon in any desired suitable manner.

The locking device described above may be used not only with short barrel firearms such as revolvers and pistols, but may also be used with longer firearms such as rifle 56, in which the bullet chamber is enlarged outwardly, by providing an adaptor in the form of a hollow dummy cartridge 58, the inner portion of which has its walls thickened to restrict the diameter thereof to that of the rifle barrel proper and to provide a shoulder 60, on the inside thereof, against which the lock tongue or cam disk 46 may engage. The dummy cartridge 58 may be held in place against the inner end of the rifle barrel by the flanges 62 of its end wall in which air passages 64, for ventilation may be provided.

This completes the description of the firearm locking device of the present invention and of the manner in which it may be used. It will be apparent that such locking device may be quickly and easily assembled with and removed from a firearm; that, once locked in place, the device will absolutely prevent any accidental or inadvertent discharge of the firearm and will remain safely and securely in place thereon against removal without the use of the appropriate key even by the exercise of considerable force; the sloping surfaces of the housing of the device making it difficult for any one but a relatively skilled person to apply or direct telling blows against it. It will also be apparent that the locking device of the present invention may be adapted for use of various types of firearms, both long and short of barrel and having different size and shape of bullet chambers. It will likewise be apparent that the locking device of the present invention permits ample ventilation of the firearm barrel to prevent sweating and rusting, and that, in one embodiment thereof, it renders the interior of the firearm barrel and of the cylinder chamber through which it is engaged not only water proof, but water repellent, as an improved guarantee against rusting.

It will be further apparent that the firearm locking device of the present invention is of relatively simple construction and economically practical for use.

It will be still further apparent that numerous variations and modification in the firearm locking device of the present invention may be made by any one skilled in the art, in accordance with the principles of the invention hereinabove set forth and without the exercise of any inventive ingenuity. I desire, therefore, to be protected for any and all such variations and modifications that may be made within the spirit of the present invention and the scope of the claims hereto appended.

What I claim is:

1. A firearm locking device comprising a housing having a longitudinally extending cylindrical bore in one end portion thereof, adapted to fit over the end of a firearm barrel, said end portion having a longitudinally extending slot formed in the wall thereof, adapted to accommodate the barrel sight therein, said bore and said slot being of a length to have the end of said barrel disposed short of the inner end of said bore when said sight abuts the inner end of said slot to leave an empty space within said bore, apertures formed in the walls of said housing opening into said space, an elongated tube fixed by one end within said bore in centrally spaced relation to the sides of the bore, said tube having a longitudinally grooved outer surface, a second longitudinally extending bore formed in the other end portion of said housing and communicating with said first bore, a cylinder lock fitted within said second bore, said cylinder lock including a key-actuated core communicating with the interior of said tube with its center point disposed in eccentric relation to the center of said tube, a rod secured by one end to the center of said cylinder lock core and extending through said tube, and a cam disk secured to the end of said rod, exteriorly of said tube and arranged to register with the end of said tube in one position thereof and to overhang said tube in another position thereof.

2. The firearm locking device of claim 1 wherein said tube has its outer diameter of its free end portion reduced, and wherein a tube of absorbent compressible material is mounted on said reduced end portion, said absorbent tube being impregnated with silicone.

3. The firearm locking device of claim 1, wherein said housing is of circular cross section and is thickest at a center point from which it tapers towards each end thereof.

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