

Oct. 12, 1971

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3,611,607

FIREARM CONVERSION SYSTEM

Filed Aug. 6, 1969

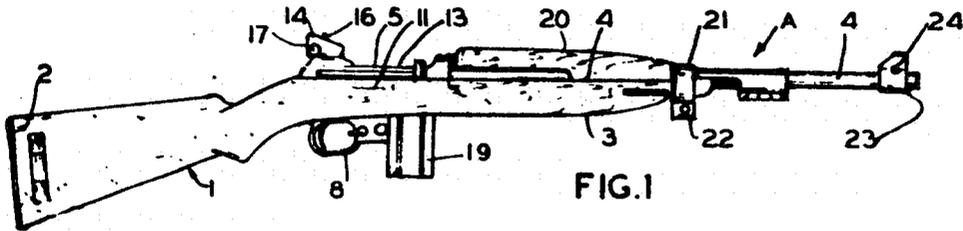


FIG. 1

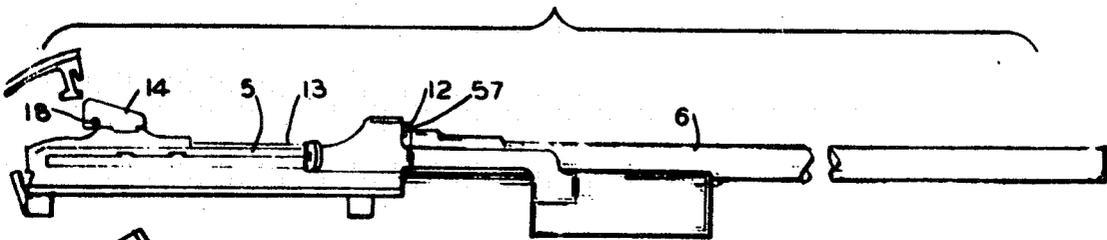


FIG. 2

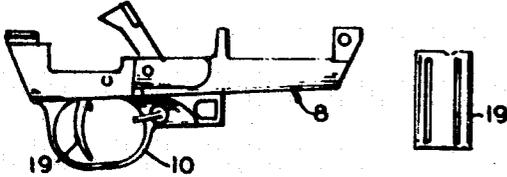


FIG. 3

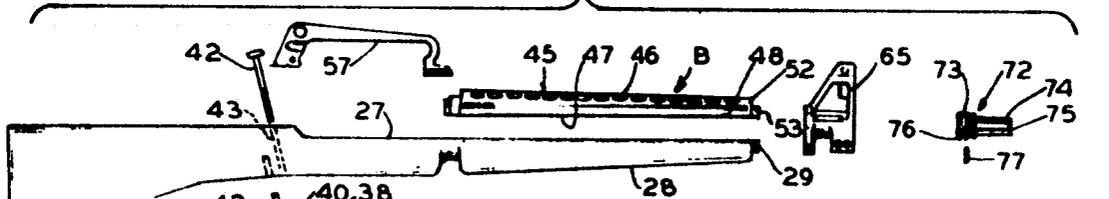


FIG. 4

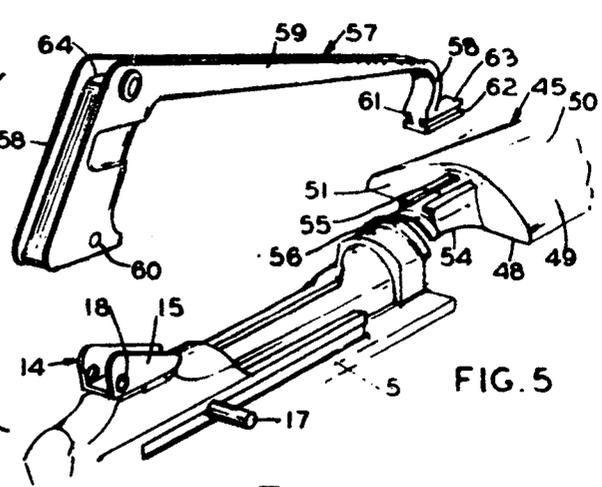


FIG. 5

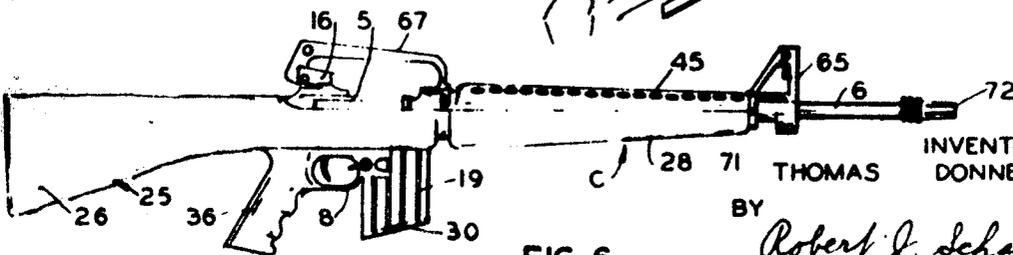


FIG. 6

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Filed Aug. 6, 1969, Ser. No. 847,890  
Int. Cl. F41c 21/00, 23/00

U.S. Cl. 42—1

19 Claims

## ABSTRACT OF THE DISCLOSURE

A firearm conversion system for modifying the military type M-1 30 cal. carbine in such manner that it has an overall aesthetic appearance similar to the military M-16 rifle or the civilian version of such rifle, namely the AR-15 rifle. The system which may include components packaged in the form of a kit for the firearm enthusiast to make the conversion on his own, generally uses the barrel and receiver assembly of the M-1 carbine in combination with the components provided by the present invention. A stock is provided which is adapted to receive the barrel and receiver assembly of the M-1 carbine and an upper hand guard will fit over a portion of the barrel and mate with a portion of the stock. An upper hand grip, front sight and similar accessories are provided so that in the assembled condition the carbine will have an overall appearance which resembles the M-16 rifle.

This invention relates in general to certain new and useful improvements in firearm conversion systems and, more particularly, to a firearm conversion system which enables the M-1 carbine to be converted in such manner that it assumes the overall appearance of an M-16 military rifle.

In recent years, firearms have become a matter of increasing interest for leisure time sports and hobbies such as in target shooting, hunting and gun collecting. Furthermore, many firearm enthusiasts will swap or change guns and rifles periodically in order to attain a newer or different model or type. With the advent of leisure time firearm activities, many of the firearm enthusiasts have become conscious and keenly aware of the various gun styles and makes and models of various types of firearms which are available.

Gun styles are often affected by the style of gun which is employed by military establishments. For example, many rifles have been fashioned along the design of the 30.06 cal. Garand military rifle. The design of the M-1 30 cal. carbine has also been adopted by many firearm producers as a design for a particular rifle. Many toy rifles have also been fashioned after the M-1 carbine. In recent years, the military M-16 rifle has received widespread attention. In fact, there is at least one civilian version of a rifle based on the M-16, namely the AR-15 rifle, and which has substantially the same outer appearance as the military M-16 rifle. However, while the M-16 military rifle may be fired automatically, the AR-15 as all civilian rifles are only capable of semi-automatic fire.

Due to the complexity of the operation and the manufacture of the M-16 military rifle and its civilian counterparts, the cost of these rifles is significantly greater than the well known M-1 30 cal. carbine. Accordingly, the enthusiast wishing to display a rifle with the design of the M-16 rifle is presently constrained to pay a substantially higher cost for such rifle.

It is therefore the primary object of the present invention to provide a system for converting a firearm of one design such as the M-1 carbine to another design so that it assumes the overall appearance of the M-16 military rifle.

It is another object of the present invention to provide a system of the type stated where the components neces-

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sary to convert such design may be packaged in a kit for do-it-yourself conversion by the rifle enthusiast.

It is a further object of the present invention to provide a system of the type stated where a conventional M-1 carbine can be rapidly and easily converted in such manner that it has the overall appearance of the M-16 military rifle.

It is another object of the present invention to provide a system of the type stated where the overall appearance of one type of rifle can be converted to assume the overall appearance of another type of rifle without complicated production equipment.

With the above and other objects in view, my invention resides in the novel features of form, construction, arrangement and combination of parts presently described and pointed out in the claims.

In the accompanying drawings (2 sheets):

FIG. 1 is a side elevational view of an M-1 30 cal. carbine which is to be converted in accordance with the present invention;

FIG. 2 is an exploded side elevational view illustrating the usable components of the M-1 carbine in the conversion;

FIG. 3 is an exploded side elevational view illustrating the components which are supplied by the present invention to convert the M-1 carbine to a device having the outer appearance of the M-16 rifle;

FIG. 4 is an enlarged perspective view of the front sight supplied with the components in FIG. 3;

FIG. 5 is an exploded perspective view showing the method of assembling some of the components provided in FIG. 3 to the carbine; and

FIG. 6 is a side elevational view of the M-1 carbine which has been converted to assume the outer appearance of the military M-16 rifle.

## GENERAL DESCRIPTION

Generally speaking, the present invention relates to a firearm conversion system for modifying the military type M-1 30 cal. carbine in such manner that it has an overall aesthetic appearance similar to the military M-16 rifle. The major component sections of the M-1 30 cal. carbine are the stock, hand guard, barrel assembly, receiver assembly and magazine. Only the major operating components of the carbine, namely, the barrel assembly and the receiver assembly are retained for the conversion.

In order to complete the conversion, the present invention provides a number of components. A stock integrally including the butt, pistol grip and lower hand grip is provided. The stock is sized to accommodate the barrel assembly and the receiver assembly from the carbine. In addition, the portion of the stock proximate the pistol grip is suitably apertured to receive the trigger assembly forming part of the receiver assembly. A magazine substantially similar to the magazine normally included with the carbine is supplied, with the exception that the supplied magazine is provided with an extended section. In a kit form, the extended section can be provided for operative attachment to the magazine provided with the carbine. The trigger assembly is designed to extend through the aperture formed in the stock and is located between the pistol grip and the extended section of the magazine. It should be recognized that since the caliber size of the magazine and the barrel assembly and receiver assembly have not been changed, the converted firearm will fire the same ammunition as the 30 cal. carbine.

An upper handgrip is also provided which fits over a portion of the barrel assembly and engages the upper margins of the stock lower hand grip. A somewhat U-shaped hand grip (conventionally referred to on the M-16 military rifle as the "rear sight") is suitably mounted

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on the upper portion of the stock in the region of the receiver assembly and extends above the receiver assembly.

The front and rear sights which are normally mounted on the barrel assembly and receiver assembly respectively, of the carbine are removed. The hand grip which is provided also serves as a rear sight in the same manner as the counterpart thereof on the M-16 military rifle serves as the rear sight. A modified front sight is also provided which is formed of a tubular member capable of being slidably disposed over the barrel assembly and an upstanding A-shaped front sight. A flash guard which fits over the forward end of the barrel assembly is provided as well as other small accessories which are needed to complete the overall conversion. When all of the provided components have been assembled, the overall appearance of the converted rifle is strikingly similar to that of the military M-16 rifle.

In general terms, the firearm conversion system of the present invention can be described as a system for converting a first firearm which has a distance outer appearance into the outer appearance of a second firearm, the outer appearance of the second firearm being substantially different from the outer appearance of the first firearm. The first firearm includes a first stock, a barrel assembly and a receiver assembly. In addition, the first firearm includes first front and rear sights, and a first bullet receiving magazine. Furthermore, the first firearm includes a trigger assembly which forms part of the receiver assembly and extends through an aperture formed in the first stock.

The system includes a number of components which are substitutable for components on the first firearm, and include a second stock which is substitutable for the first stock and is sized to accommodate the receiver assembly and barrel assembly; a hand guard sized to fit over the barrel assembly and engage the second stock in such manner that the second stock and hand guard have a unitary member appearance; a handle forming means capable of being secured to said second stock and extending over a portion of said receiver assembly; a second front sight substitutable for the first front sight and capable of being attached to said barrel assembly; a second bullet receiving magazine, substitutable for the first bullet receiving magazine and which second bullet receiving magazine has an appearance similar to a bullet receiving magazine used in said second firearm, and where the second bullet receiving magazine is sized to be accommodated by the receiver assembly; and a flash suppressor which is capable of being disposed over the forward end of said barrel assembly.

In general terms, the method of the present invention involves the converting of a first firearm which has a distinct outer appearance into the outer appearance of a second firearm, the outer appearance of the second firearm being substantially different from the outer appearance of the first firearm. The first firearm includes the aforementioned components, and the method of converting employs the use of the components provided by the system.

The method involves the steps of removing a first bullet receiving magazine from said receiver assembly; removing the barrel assembly and the receiver assembly from the first stock; removing the first front and rear sights from said barrel assembly and receiver assembly; securing a second front sight in a desired location on said barrel assembly; locating the barrel assembly and receiver assembly in a second stock sized to receive the barrel assembly and receiver assembly and which second stock has an outer appearance similar to the stock of the second firearm; securing the barrel assembly and receiver assembly to the second stock; disposing a hand guard over a portion of the barrel assembly and engaging said second stock in such manner that the second stock and hand guard have a unitary member appearance; securing said hand guard to said second stock; locating a handle form-

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ing means over a portion of said second stock and operatively securing said handle forming means to the second stock; substituting for said first bullet receiving magazine, a second bullet receiving magazine which is sized to be accommodated by said receiver assembly and where said second bullet receiving magazine has the appearance of a bullet receiving magazine used in said second firearm; and securing a flash suppressor to the forward end of the barrel assembly.

#### DETAILED DESCRIPTION

Referring now in more detail and by reference characters to the drawings which illustrate a preferred embodiment of the present invention A designates an M-1 30 cal. carbine rifle (FIG. 1); B designates all of the supplied components necessary to convert the carbine in such manner that it has the appearance of a military M-16 rifle (FIG. 3); and C designates the M-1 30 cal. carbine rifle which has been converted in accordance with the present invention to assume the appearance of the M-16 rifle (FIG. 6).

The M-1 30 cal. carbine rifle A generally comprises a stock 1 which integrally includes a butt section 2 and barrel receiving section 3. The stock 1 is provided with an elongated recess (not shown) which is sized to receive a receiver assembly 5 and a barrel assembly 6 in the manner as illustrated in FIG. 1. The stock 1 is also provided with a vertically located aperture which communicates with the elongated recess and is sized to accommodate a trigger assembly 8 and which forms part of the receiver assembly 5. The trigger assembly 8 generally includes a trigger 9 connected to a trigger release mechanism (not shown) in the trigger assembly 8, and a trigger guard 10. The stock 1 is also provided with an elongated slot 11 in the area of the elongated recess so that a portion of the receiver assembly 5 extends above the recess 4.

By further reference to FIG. 1, it can be seen that the receiver assembly 5 integrally includes an enlarged circular boss 12 which abuts against the forward margin of the elongated slot 11. The receiver assembly 5 also includes a bolt mechanism 13 which operates in response to actuation of the carbine A. Secured to the rearward end of the receiver assembly 5 is a U-shaped bracket 14 having a pair of upstanding flanges 15 which are sized to receive a rear sight 16. The rear sight 16 is secured to the bracket 14 by means of a pin 17 which extends through an aperture 18 formed in the flanges 15 and in the rear sight 16. It can be observed that the rear sight 16 can be conveniently removed from the bracket 14 by merely removing the pin 17.

A magazine 19 which is essentially rectangular in horizontal cross section for the full vertical length thereof is sized to extend through the vertically located aperture in the stock 1 for removable locking in the receiver assembly 5. As indicated by the name of the rifle the magazine 19 is designed to receive a plurality of 30 cal. bullets and feed the same to the receiver assembly 5 so that the rifle A can be fired on a semi-automatic basis.

An upper hand guard 20 which is provided with an elongated groove on its underside is sized to fit over a portion of the barrel assembly 6 and abut against the enlarged boss 12 in the manner as illustrated in FIG. 1. Furthermore, the lower longitudinal margins of the upper hand guard 20 engage the upper longitudinal margins of the barrel receiving section 3. The upper hand guard 20 and the stock 1 are held in locked engagement at their forward ends by means of a spring metal clip or so-called "stock clamp" 21 capable of being tightened by means of set screws 22.

A leaf type front sight 23 is secured to the forward end of the barrel assembly 6 by means of set screws 24. It can be seen that the front sight 23 includes a circular bracket forming member which is capable of being concentrically disposed over the forward end of the barrel

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assembly 6 to be located and tightened in the desired position.

By reference to FIGS. 1 and 2, it can be seen that the carbine A can be rapidly disassembled by removing the set screws 24 which retain the front sight 23 on the barrel assembly 6 and thereafter remove the front sight 23. The magazine 19 can be conveniently removed by releasing a latch conventionally provided on the magazine 19 for this purpose. Thereafter the set screw 22 can be released for removal of the spring metal clip 21. The receiver assembly 5 and barrel assembly 6 can be removed from the stock 1 by merely lifting the same out of the elongated groove formed in the stock 1. At this juncture, the barrel assembly 6 and the receiver assembly 5 are removed as a unitary member. It is also to be noted that the trigger assembly 8 is rigidly connected to the receiver assembly 5 and is merely lifted out of the vertically located recess formed in the stock 1. The rear sight 16 is next removed from the bracket 14 by removing the pin 17 from the aperture 18.

The actual operation of the carbine A which is generally performed by the receiver assembly 5, the barrel assembly 6 and the trigger assembly 8 is not changed by the conversion system of the present invention and is therefore not described in detail herein. The operation of the carbine A is well described in various literature. Furthermore, it is not necessary to disassemble the carbine to the extent necessary for cleaning purposes (field stripping) in order to perform the conversion of the present invention.

The usable components of the carbine A which can be used in the conversion of the present invention are more fully illustrated in the exploded side elevational view of FIG. 2 and include the receiver assembly 5, the barrel assembly 6, the trigger assembly 8 and the magazine 19.

The components B which are supplied by the system of the present invention in order to perform the conversion are more fully illustrated in the exploded side elevational view of FIG. 3. These components include a stock 25 which may be formed of wood and which contains a butt section 26, a receiver accommodating section 27 and a barrel accommodating section 28, the latter of which serves as the lower portion of a hand guard. The stock 25 is provided with an elongated groove 29 in the area of the receiver accommodating section 27 and the barrel accommodating section 28 in order to receive the receiver assembly 5 and the barrel assembly 6 of the carbine A. It is to be noted that the upper margin of the butt section 2 of the stock 1 is tapered and angularly located with respect to the barrel receiving section 3 of the stock 1. However, the butt section 26 of the stock 25 lies substantially in the same horizontal plane as the barrel accommodating section 28 and furthermore, the upper margin of the butt section 26 is nearly parallel to the upper margin of the barrel accommodating section 28. The stock 28 is integrally formed with a forwardly protruding arcuate flange 29. It should also be observed that the stock 25 has an overall appearance which is similar to that of the military M-16 rifle. The military M-16 rifle has not been illustrated herein inasmuch as the same is well known and the outer appearance thereof has been illustrated in many forms of literature. The outer appearance of the military M-16 rifle and its civilian counterpart is somewhat similar to the appearance of the rifle illustrated in U.S. Pat. No. 3,090,150.

The stock 25 is also provided with a vertically located slot (not shown) in the area of the receiver accommodating section 27 to receive and accept the trigger assembly 8. When the receiver assembly 5 and the attached barrel assembly 6 are disposed in the elongated groove of the stock 25, the trigger assembly 8 will protrude through the vertically located slot. In like manner, the vertically located slot which communicated with the elongated groove of the stock 25 will also be of sufficient length to accept the magazine 19. As indicated previously, the maga-

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zine 19 is removably attached to the receiver assembly 5.

An extension block 30 is also included in the supply of components B and is generally formed of a molded plastic such as a rigid polystyrene. The extension block 30 is generally rectangular in horizontal cross section and includes a pair of flat end walls 31 which merge into a horizontal top wall 32 and an upwardly inclined bottom wall 33. The forwardly presented end wall 31 and the bottom wall 33 are integrally formed with a forwardly protruding stub 35. The extension block 30 is sized to be rigidly secured to the magazine 19 so that the rearwardly presented end wall of the magazine 19 will engage the forwardly presented end wall 31 of the extension block 30 and the lower margin of the magazine 19 will engage the upper surface of the stub 35 in the manner as illustrated in FIG. 6. The extension block may be secured to the magazine 19 by any conventional means such as an epoxy adhesive. It should be recognized that it is also possible to provide a new magazine with the extension block permanently secured thereto as a component in place of the extension block 30.

It should be observed that the military M-16 rifle has a magazine which is both longer in the vertical dimension and in the horizontal dimension when compared to the magazine of the M-1 carbine. In addition, the magazine of the military M-16 rifle has an inclined bottom wall. Accordingly, when the extension block 30 is secured to the magazine 19 of the carbine A, the magazine 19 will have an overall appearance which is similar to the magazine of the military M-16 rifle. The extension block 30 also serves a second purpose. It is to be noted that in the military M-16 rifle, the trigger assembly includes a forwardly presented metal housing which accommodates the magazine. In essence, the metal housing appears as though it abuts against the trigger guard of the military M-16 rifle. The magazine in the M-1 carbine is actually spaced forwardly of the trigger guard 10. Accordingly, when the extension block 30 is attached to the magazine 19, it will appear as though the magazine abuts against the trigger guard in the converted carbine.

The components B also include a pistol grip 36 which may also be formed of a molded plastic such as polystyrene and has an inclined back wall 37 and an inclined forwardly presented wall 38, the latter being provided with a series of vertically spaced finger receiving grooves 39. The pistol grip is also provided with relatively flat top and bottom walls 40, 41, respectively. The pistol grip 36 may be secured to the underside of the stock 25 in the region near the receiver accommodating section 26 by means of a machine screw 42 which extends through an elongated aperture 43 formed in the stock 25, in the manner as illustrated in FIG. 3. The screw 42 may be secured to a nut 43 which is conventionally affixed in the pistol grip 36. The pistol grip 36 is inletted in the provision of a forwardly extending shoulder 44 which engages the underside of the trigger guard 10, in the manner as illustrated in FIG. 6. Thus, it can be observed that the pistol grip 36 can be rigidly secured to the underside of the stock 25 by means of the screw 42 and is held against rotation by virtue of the fact that the upper portion of the forwardly presented wall 38 engages the rearwardly presented surface of the trigger guard 10 and the shoulder 44 engages the underside of the trigger guard 10.

An upper hand guard 45 which is more fully illustrated in FIGS. 3 and 5 is capable of being disposed over a portion of the barrel assembly 6 and engages the upper margins of the barrel accommodating section 28 of the stock 25. It should be observed by reference to FIG. 6 that the hand guard 45 when secured to the barrel accommodating section 28 have a unitary member appearance. The hand guard of the military M-16 rifle is constructed of two vertically disposed members which are disposed on opposite sides of the barrel and are provided with abutting margins which are engageable so that the hand guard members have a unitary member appearance. While the two elements which form the hand guard por-

tion of the present invention are not vertically disposed on opposite sides of the barrel assembly 6, they nevertheless have the same unitary member appearance as the hand guard portion of the military M-16 rifle.

The upper hand guard 45 generally comprises a body portion 46 having an arcuately shaped bottom wall 47 sized to accommodate the barrel assembly 6 and which integrally merges into a pair of horizontally disposed relatively flat surfaces 48. The relatively flat surfaces 48 integrally merge into slightly upwardly inclined side walls 49 which in turn, merge into inclined top walls 50, in the manner as illustrated in FIG. 5. The hand guard 45 also includes a relatively flat rearwardly presented end wall 51 and a relatively flat forwardly presented end wall 52. The hand guard 45 may be formed of a molded plastic material such as a rigid polystyrene or it may be fabricated from wood as desired.

The forwardly presented end wall 52 is provided with a forwardly protruding somewhat arcuate integrally formed flange 53 which is the complement of the flange 29 and which also resides in engagement with the upper surface of the barrel assembly 6. Extending rearwardly from the rearwardly presented end wall 51 in the manner as illustrated in FIG. 5 is an arcuate metal plate 54 which is provided with an elongated longitudinally located slot 55. Spaced below the metal plate and extending rearwardly from the rearwardly presented end wall 51 is a metal arcuately shaped flange 56. The metal plate 54 may be pressed fitted or otherwise fitted into a groove formed in the rearwardly presented end wall 51. The metal flange 56 may be secured to the arcuately shaped bottom wall 47 by means of screws (not shown) or other conventional fastening means.

The flange 56 is sized to extend into an arcuate groove (not shown) formed in the forwardly presented end of the receiver assembly 5. The metal plate 54 is sized to extend over a portion of the receiver assembly 5 proximate the forward end thereof.

The components B also include a handle or so-called hand grip 57 which also serves as a rear sight in a manner to be hereinafter described. The hand grip 57 is constructed in the form of an invented somewhat U-shaped member having a pair of vertical legs 58 integrally connected by a horizontal leg 59. The hand grip 57 similarly is preferably formed from a suitable metal such as steel, though it may be formed of a molded plastic or fabricated from wood. The rearwardly disposed leg 58 is sized to snugly fit within the flanges 15 of the bracket 14 and is also provided with an aperture 60 which is aligned with the aperture 18 in the bracket 14. The rearward end of the hand grip 57 can be secured to the bracket 14 by inserting the pin 17 in the aligned apertures 18 and 60.

The forwardly presented leg 58 of the hand grip 57 is provided with a downwardly extending reduced connecting flange 61 which integrally merges into a pair of laterally struck shoulders 62. By reference to FIG. 5, it can be seen that the shoulders 62 extend forwardly of the leg 58. Spaced upwardly from the shoulders 62 and extending forwardly of the forwardly presented leg 58 is an integrally formed mating shoulder 63. When the hand grip 57 is secured to the hand guard 45, the shoulders which are arcuately shaped to conform to the shape of the metal plate 54 will slide into the area between the metal plate 54 and the metal flange 56. The shoulder 63 will extend over the metal plate 54 and engage the upper surface of the metal plate 54. In like manner, the connecting flange 61 will slide into the elongated slot 55.

The upper surface of the horizontal leg 59 is provided with a longitudinally extending groove 64 which serves as the rear sight. It is to be noted that the hand grip 57 is substantially similar to the hand grip employed on the military M-16 rifle and in like manner the hand grips on the converted carbine and on the M-16 rifle both serve as the rear sights.

The components B also include a front sight 65 which is

more fully illustrated in FIG. 4 and which may be conventionally cast from a suitable metal. The front sight 65 generally comprises an open ended tubular retaining shaft 66 which is capable of being concentrically disposed about and slidable along the barrel assembly 6. The retaining shaft 66 is longitudinally split along its upper margin and integrally formed with the upper surface of the shaft on opposite sides of the split are a pair of upstanding A-frames 67. At their upper ends the A frames 67 are held in abutting engagement and serve as a sight bead 68 and are also integrally provided with a pair of outwardly extending ears 69. A pair of locking screws are located in the lower corners of the legs forming the A-frames 67 and a similar locking screw 70 is located at the point of adjointment of the A-frame legs 67 in the manner as illustrated in FIG. 4.

At its rearward end the front sight 65 is provided with a cup-like retaining flange 71 which extends over the arcuate flanges 29 and 53. In this manner, the front sight 65 serves its intended purpose as a front sight as well as to hold the hand guard 45 and the barrel accommodating section 28 of the stock 25 in secure engagement against the barrel assembly 6. It should also be observed that the front sight 65 has an outer appearance substantially similar to the front sight normally employed on the military M-16 rifle. The front sight 65 can be conveniently fastened to the barrel assembly by merely sliding the tubular shaft 66 along the barrel assembly 6 until the cup-like retaining flange 71 extends over the arcuate flanges 29, 53. Longitudinal shifting movement of the front sight 65 is enabled since the front sight 65 is vertically split. When located in the proper position, the front sight 65 can be tightened and held rigidly in position by merely tightening each of the locking screws 70.

The components B also include a flash guard or so-called flash suppressor 72 which may be formed of a cast metal such as steel. The flash suppressor 72 generally comprises a tubular body 73 which is circular in vertical cross section. The tubular body 73 integrally merges into a diametrically reduced tapered forward section 74 having a series of circumferentially spaced longitudinally extending grooves 75. The tubular body 74 is similarly provided with longitudinally spaced circumferentially extended grooves 76.

The flash suppressor 72 has an outer appearance which is similar to the flash suppressor normally used on the military M-16 rifle. The flash suppressor is capable of being slidable along the barrel assembly to the desired position and locked in the desired position by means of a set screw 77.

In use, the 30 cal. M-1 carbine can be rapidly and easily converted by use of the components B. In the actual conversion, the magazine 19 is removed from the receiver assembly 5 by means of a release latch normally provided on the trigger assembly 8. The rear sight 16 is removed from the retaining bracket by removal of the pin 17. The stock clamp 21 is next removed by releasing the set screws 22. After the upper hand guard 20 is removed, the barrel assembly 6, the receiver assembly 5 and the trigger assembly 8 forming a part thereof can be removed from the stock 1 as a unitary structure. The front sight 23 is removed by releasing the set screws 24.

The operating structure of the M-1 carbine including the barrel assembly, the receiver assembly 5 and the trigger assembly 8, as well as the magazine 19 are preserved for use in the conversion. The components B as illustrated in FIG. 3 are the elements which are provided by the system of the present invention in order to complete the conversion. At this point, it should be recognized that the carbines could be converted by a service organization or the components B could be packaged in the form of a kit for do-it-yourself rifle enthusiasts.

The unitary structure of the barrel assembly 6, receiver assembly 5 and trigger assembly 8 may be conveniently disposed in the elongated slot of the stock 25. The pistol

grip 36 is next disposed against the underside of the stock 25 in the region of the receiver accommodating section 27 and the receiver assembly 5, the pistol grip 36 and the stock 25 are held in place by means of the screw 42 which is threaded into the nut 43.

The extension block 30 is then adhesively secured to the magazine 19 in the manner as previously described. As previously stated, it is also possible to provide a magazine with the extension already attached in kit form.

The hand grip 57 is attached to the bracket 14 by inserting the pin 17 into the apertures 18 and 60. The hand guard is next secured to the stock by sliding the shoulders 62 under the metal plate 54 with the connecting flange 61 fitting into the slot 55. The shoulders 63 would fit snugly against the upper surface of the metal plate 54. Simultaneously, the metal flange 56 is inserted into the groove 57 formed in the forwardly presented end of the receiver assembly 5. As this occurs, the metal plate 54 will slightly extend over a portion of the receiver assembly 5.

The front sight 65 is next concentrically disposed about the barrel assembly 6 and slid therealong until the cup-like flange 71 extends over and engages the flanges 29, 52. The front sight 65 can then be locked into place by tightening of the screws 70. At this point, it can be observed that the converted carbine has the outer appearance of the military M-16 rifle and yet has the same operating characteristics of the M-1 carbine. Additionally, it should be observed that all of the components are held together in a substantially rigid structure. Finally, the flash suppressor 72 is secured to the forward end of the barrel assembly 6 and secured in position by tightening of the set screws 77. It should be observed that alternately the two flanges 29, 53 could be retentively held together for securely holding the hand guard 45 to the stock 25 by means of the stock clamp 21. In this manner, the front sight could be independent of and spaced forwardly of the hand guard 45 and the stock 25.

The converted M-1 carbine has the appearance as illustrated in FIG. 6. It can be observed that this converted carbine has an outer appearance which is very substantially similar to that of the military M-16 rifle. Aside from the esthetic appearance created by the conversion, the converted M-1 carbine has many utilitarian advantages residing in improved operating characteristics. The horizontal leg 59 of the handgrip 57 is beveled on its underside in the region of the bolt forming part of the receiver assembly 6. Normally, the extending shell is ejected upwardly and to the rear of the operator of the M-1 carbine. This type of ejection procedure sometimes creates a potential hazard to the user of the carbine since the expended shell may fall short of its normal intended trajectory and possibly contact the user of the carbine. The beveling on the underside of the hand grip 57 aids in guiding the trajectory of the expended shell.

The very structure of the converted carbine materially improves the sighting upon a target. The M-16 military rifle was designed with the relatively flat upper margin of the stock butt and the front and rear sights to provide improved sighting. In like manner, the converted carbine has a relatively straight upper margin on the stock butt 25. By raising the rear sight and the front sight on the converted carbine, it is possible to obtain a raised line of sight with respect to the barrel assembly 6. This new line of sight actually improves sighting.

Finally, the relatively straight upper margin of the stock butt 26 aids in substantially reducing recoil. It should be observed that the concept of the present invention is not necessarily limited to the conversion of a M-1 carbine to a rifle with the appearance of the M-16 military rifle, and that almost any rifle can be converted to have an outer appearance of another rifle in accordance with the system of the present invention.

It should be understood that changes and modifications in the form, construction, arrangement and combination of parts presently described and pointed out in the claims

may be made and substituted for those herein shown without departing from the nature and principle of my invention.

Having thus described my invention, what I desire to claim and secure by Letters Patent is:

1. A system for converting a first firearm which has a distinct outer appearance into the outer appearance of a second firearm, the outer appearance of the second firearm being substantially different from the outer appearance of the first firearm, and where the first firearm includes a first stock, a barrel assembly, and a receiver assembly, said system comprising:

(a) a second stock substitutable for said first stock and being sized to accommodate said receiver assembly and said second stock having a groove to accommodate a portion of said barrel assembly, said second stock having a pair of longitudinal margins extending along a portion of said groove,

(b) a hand guard sized to fit over said barrel assembly and to engage said second stock, said hand guard having a pair of longitudinal margins which are engageable with the longitudinal margins on said second stock in such manner that the second stock and hand guard have a unitary member appearance and completely enclose a portion of the barrel assembly, and

(c) handle forming means capable of being secured to said second stock and said hand guard and extending over a portion of said receiver assembly.

2. The system of converting a first firearm of claim 1 further characterized in that said receiver assembly is first front and rear sights, and that said system includes a second front which is substitutable for said first front sight and is capable of being attached to said barrel assembly.

3. The system of converting a first firearm of claim 2 further characterized in that means is provided on said second front sight for attaching said second stock and hand guard to said barrel assembly.

4. The system of converting a first firearm of claim 1 further characterized in that said first firearm includes a first bullet receiving magazine and that said system includes a second bullet receiving magazine which has the appearance of a bullet receiving magazine used in said second firearm and which second bullet receiving magazine is sized to be accommodated by the receiver assembly.

5. The system of converting a first firearm of claim 1 further characterized in that said receiver assembly is provided with a trigger assembly and that said second stock is provided with an aperture sized to receive said trigger assembly when said receiver assembly is disposed in said second stock.

6. The system of converting a first firearm of claim 1 further characterized in that said second stock includes a recessed portion to receive said receiver assembly and said barrel assembly and that said second stock is provided with an elongated groove in the area of the recessed portion so that a portion of the receiver assembly extends above the recessed portion.

7. The system of converting a first firearm of claim 1 further characterized in that said first firearm includes a bullet receiving magazine and that said system includes an extension for operative attachment to said bullet receiving magazine so that the bullet receiving magazine with the extension thereon has the appearance of a bullet receiving magazine used in said second firearm.

8. The system of converting a first firearm of claim 1 further characterized in that cooperating attachment means are formed on said hand guard and handle forming means so that said hand guard and handle forming means may be rigidly attached to each other.

9. The system of converting a first firearm of claim 1 further characterized in that a pistol grip is attached to said second stock in such manner that said pistol grip is spaced downwardly from said handle forming means, and

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that said second stock, pistol grip and receiver assembly are all rigidly attached by a common attachment means.

10. A system for converting a first firearm which has an outer appearance of an M-1 carbine into the outer appearance of a second firearm which outer appearance is substantially similar to a military M-16 rifle, the outer appearance of the M-1 carbine being substantially different from the outer appearance of the military M-16 rifle, where the M-1 carbine includes a first stock, a barrel assembly, and a receiver assembly, said system comprising:

- (a) a second stock substitutable for said first stock and being sized to accommodate said receiver assembly and barrel assembly,
- (b) a hand guard sized to fit over said barrel assembly and to engage said second stock in such manner that the second stock and hand guard have a unitary member appearance, and
- (c) handle forming means capable of being secured to said second stock and extending over a portion of said receiver assembly.

11. A system for converting a first firearm which has a distinct outer appearance into the outer appearance of a second firearm, the outer appearance of the second firearm being substantially different from the outer appearance of the first firearm, and where the first firearm includes a first stock, a barrel assembly, a first bullet receiving magazine, and a receiver assembly, said system comprising:

- (a) a second stock substitutable for said first stock and being sized to accommodate said receiver assembly and barrel assembly,
- (b) a hand guard sized to fit over said barrel assembly and to engage said second stock in such manner that the second stock and hand guard have a unitary member appearance,
- (c) handle forming means capable of being secured to said second stock and extending over a portion of said receiver assembly, and
- (d) a second bullet receiving magazine which has the appearance of a bullet receiving magazine used in said second firearm, and which second bullet receiving magazine is sized to be accommodated by said receiver assembly.

12. A system for converting a first firearm which has a distinct outer appearance into the outer appearance of a second firearm, the outer appearance of the second firearm being substantially different from the outer appearance of the first firearm, and where the first firearm includes a first stock, a barrel assembly, a bullet receiving magazine, and a receiver assembly, said system comprising:

- (a) a second stock substitutable for said first stock and being sized to accommodate said receiver assembly and barrel assembly,
- (b) a hand guard sized to fit over said barrel assembly and to engage said second stock in such manner that the second stock and hand guard have a unitary member appearance,
- (c) handle forming means capable of being secured to said second stock and extending over a portion of said receiver assembly, and
- (d) an extension member for operative attachment to said bullet receiving magazine so that the bullet receiving magazine with the extension thereon has the appearance of a bullet receiving magazine used in said second firearm.

13. A system for converting a first firearm which has a distinct outer appearance into the outer appearance of a second firearm, the outer appearance of the second firearm being substantially different from the outer appearance of the first firearm, and where the first firearm includes a first stock, a barrel assembly, front and rear sights, and a receiver assembly, said system comprising:

- (a) a second stock substitutable for said first stock and being sized to accommodate said receiver assembly and barrel assembly,

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(b) a hand guard sized to fit over said barrel assembly and to engage said second stock in such manner that the second stock and hand guard have a unitary member appearance,

(c) handle forming means capable of being secured to said second stock and extending over a portion of said receiver assembly,

(d) a second front sight which is substitutable for said first front sight and is capable of being attached to said barrel assembly, and

(e) means on said second front sight for attaching said second stock and hand guard to said barrel assembly.

14. A method of converting a first firearm which has a distinct outer appearance into the outer appearance of a second firearm, the outer appearance of the second firearm being substantially different from the outer appearance of the first firearm, and where the first firearm includes a first stock, a barrel assembly and a receiver assembly, said method comprising:

(a) removing the barrel assembly and the receiver assembly from the first stock,

(b) locating the barrel assembly and receiver assembly in a second stock sized to accommodate the receiver assembly and said second stock having a groove to accommodate a portion of said barrel assembly, said second stock having an outer appearance similar to the stock of said second firearm, said second stock also having a pair of longitudinal margins extending along a portion of said groove,

(c) securing the barrel assembly and receiver assembly to said second stock,

(d) disposing a hand guard having a pair of longitudinal margins over a portion of said barrel assembly and engaging the longitudinal margins of said hand guard with the longitudinal margins of said second stock in such manner that the second stock and hand guard have a unitary member appearance and enclose a portion of the barrel assembly.

(e) securing said hand guard to said second stock, and

(f) locating a handle forming means over a portion of said second stock and operatively securing said handle forming means to said second stock and hand guard.

15. The method of converting a first firearm of claim 14 further characterized in that the method includes the steps of

(a) removing first front and rear sights from said barrel assembly and receiver assembly, and

(b) securing a second front sight in a desired location on said barrel assembly.

16. The method of converting a first firearm of claim 14 further characterized in that the method includes the steps of

(a) removing a first bullet receiving magazine from said receiver assembly,

(b) substituting for said first bullet receiving magazine, a second bullet receiving magazine which is sized to be accommodated by said receiver assembly, and

(c) adding to said second bullet receiving magazine, an extension so that said second bullet receiving magazine has the appearance of a bullet receiving magazine used in said second firearm.

17. The method of claim 14 further characterized in that the method includes the securing of a flash suppressor to the forward end of the barrel assembly.

18. A method of converting a first firearm which has the outer appearance of an M-1 carbine into the outer appearance of a second firearm which has an outer appearance substantially similar to a military M-16 rifle, the outer appearance of the M-1 carbine being substantially different from the outer appearance of the military M-16 rifle, and where the first firearm includes a first stock, a barrel assembly and a receiver assembly, said method comprising:

- (a) removing the barrel assembly and the receiver assembly from the first stock,

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- (b) locating the barrel assembly and receiver assembly in a second stock sized to receive the barrel assembly and receiver assembly and which second stock has an outer appearance similar to the stock of said military M-16 rifle, 5
- (c) securing the barrel assembly and receiver assembly to said second stock,
- (d) disposing a hand guard over a portion of said barrel assembly and engaging said second stock in such manner that the second stock and hand guard have a unitary member appearance, 10
- (e) securing said hand guard to said second stock, and
- (f) locating a handle forming means over a portion of said second stock and operatively securing said handle forming means to said second stock. 15

19. A method of converting a first firearm which has a distinct outer appearance into the outer appearance of a second firearm, the outer appearance of the second firearm being substantially different from the outer appearance of the first firearm, and where the first firearm includes a first stock, a barrel assembly, a first bullet receiving magazine, and a receiver assembly, said method comprising: 20

- (a) removing the barrel assembly and the receiver assembly from the first stock, 25
- (b) locating the barrel assembly and receiver assembly in a second stock sized to receive the barrel assembly and receiver assembly and which second stock has an outer appearance similar to the stock of said second firearm, 30
- (c) securing the barrel assembly and receiver assembly to said second stock,
- (d) disposing a hand guard over a portion of said barrel assembly and engaging said second stock in such 35

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- manner that the second stock and hand guard have a unitary member appearance,
- (e) securing said hand guard to said second stock,
- (f) locating a handle forming means over a portion of said second stock and operatively securing said handle forming means to said second stock,
- (g) removing a first bullet receiving magazine from said receiver assembly,
- (h) substituting for said first bullet receiving magazine, a second bullet receiving magazine which is sized to be accommodated by said receiver assembly, and
- (i) adding to said second bullet receiving magazine, an extension so that said second bullet receiving magazine has the appearance of a bullet receiving magazine used in said second firearm.

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U.S. Cl. X.R.

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