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EXTENSIBLE DEVICE FOR GUN CASE

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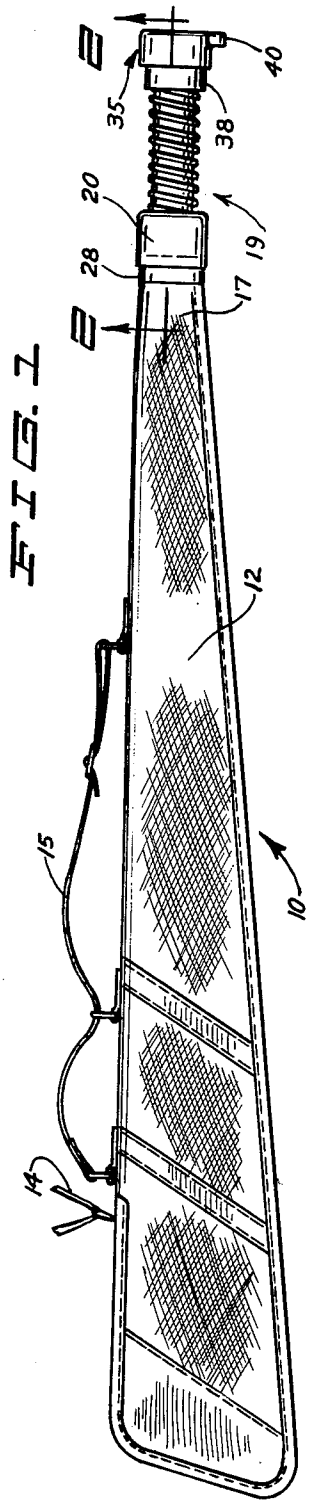


FIG. 1

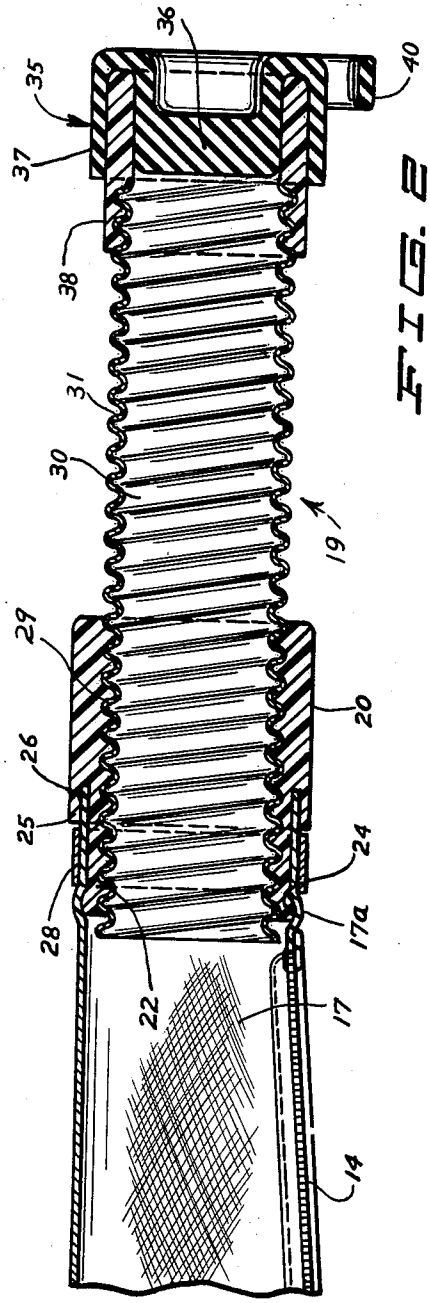


FIG. 2

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EXTENSIBLE DEVICE FOR GUN CASE

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This invention relates to an improvement in a gun case construction. More particularly this invention relates to an improvement in the construction of an extensible gun case and also to an attachment converting a gun case of a given length into an extensible gun case.

It is desirable to have a gun case adjustable in length to accommodate guns of various lengths. It is particularly desirable in the sale of gun cases to have an extensible gun case whereby the seller is relieved of the necessity of carrying a large inventory comprising a multiplicity of different lengths of gun cases to accommodate his trade, but rather may carry a much smaller fully adequate stock of gun cases without specific regard to the length of such gun cases. In the case of a user it is also desirable to have a gun case usable with guns of various lengths.

It is an object of this invention therefore to provide a device integral with the muzzle end portion of a gun case for adjustable extension thereof or to form an extensible attachment for a gun case.

It is another object of this invention to provide an extensible portion of a gun case which is both airtight and weathertight and which provides for an infinite number of minute increments of extension resulting in a perfect length and a snug fit to correspond to any given gun length within a substantial range of lengths.

It is more specifically an object of this invention to provide a sleeve-like member embracing the muzzle end portion of a gun case to become integral therewith and having in connection therewith a tubular member adapted to be received therein for axial movement relative thereto to receive the muzzle end portion of a gun barrel therein and an end cap sealing the free end of said tubular member to cushion the end of said gun barrel.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to similar parts throughout the several views and in which:

FIG. 1 is a view in side elevation of applicant's invention in connection with a gun case; and

FIG. 2 is a broken view in magnified horizontal section taken on line 2—2 of FIG. 1 as indicated.

Referring to the drawings, a gun case **10** of conventional design is shown comprising a body portion **12** which may be formed of any suitable material such as of a plastic or durable coarse fabric material suitably lined and having a zipper **14** which will extend substantially full length along one edge portion thereof and about the butt end thereof to permit the gun case to open up in a flat condition. A strap handle **15** is secured to the other edge portion of said gun case. The muzzle end portion of said gun case is indicated by the character **17**. The particular construction of the gun case above described of itself forms no part of the invention herein.

With particular reference to FIG. 2, applicant's device indicated generally by the character **19** is shown in section attached to said gun case **10** to form an integral part thereof. The muzzle end portion **17** of said gun case will be formed as an open end portion, or in the event that the applicant's device is applied as an attachment to a completely finished gun case the end cap thereof will be removed to provide an open end.

Applicant's device comprises a sleeve **20** of relatively

short length which is preferably formed of a substantially rigid material such as of a plastic material. Said sleeve **20** has a rearwardly extending body portion **22** of reduced outer diameter which will be of a diameter to snugly fit within the open muzzle end **17** of said gun case. At the free end of said reduced body portion **22** there is formed an external annular rib **24** of sufficient prominence to cause a substantial bulge forming an annular rib **17***a* in said gun case, as indicated in FIG. 2.

At the point of juncture between said reduced body portion **22** and the remaining portion of the sleeve **20** is formed a shoulder **25** and extending inwardly of said shoulder axially of said sleeve is an annular open-ended slot **26** of sufficient width to very nicely and snugly receive therein the adjacent free end portion of the gun case **10**. Said end portion preferably will be cemented within said slot for a sealed engagement. Clamping said sleeve and the end portion of said gun case together is an annular member **28** in the form of a flat ring of sufficient width to take up the distance or the space between the shoulder **25** and the bulge **17***a* in said gun case. Thus said ring **28** very nicely locks together said sleeve **20** and the reduced end portion of said gun case **10**. Said ring may be variously formed and securing it in position as indicated is a known practice in the art requiring no explanation here.

Said sleeve **20** will have a bore of sufficient diameter for the purposes hereinafter indicated and will be internally threaded as indicated by the character **29** with said thread being relatively coarse. Arranged and constructed to be threaded into said sleeve **20** is a tubular member **30** having a thread **31** shown forming a convoluted wall construction. The width of the pitch of the thread used in connection with the sleeve and said tubular member is a matter of design, and a coarser thread provides a faster axial adjustment in either lengthening or shortening a gun case. Said tubular member will nicely accommodate the muzzle of a gun whether fully received within the gun case or extended therefrom and will be formed of a sufficiently rigid material, as of plastic, which will be non-injurious to the gun muzzle.

An end cap member **35** is provided to seal the free end of the tubular member **30**. Said end cap may be variously formed and variously secured to said tubular member. It is here indicated having a central relatively thick resilient body portion **36** forming a cushion and having a reversely curved sleeve-like portion **37** forming an annular slot having disposed and secured therein the upper portion of a collar **38** having an extending thread portion threaded onto the free end of said tubular member **30**. Said end cap may be cemented onto said tubular member as may be desired.

Extending outwardly of said end cap is an apertured ear portion **40** forming a hanger for said gun case.

It is quite obvious from the above description that the applicant's device may be formed integral with a gun case during the course of its manufacture or that a completed gun case, such as a used case, may readily be modified to have applicant's device attached thereto and made an integral part thereof.

Operation

In use, a gun case embodying the applicant's extensible device will be opened or closed for the installation or removal of a gun in a conventional manner by opening or closing the case with the use of the zipper **14**.

For any particular gun, once the applicant's device has been properly adjusted, no further adjustment will be required. However adjustment can readily be made in adapting a gun case for use with guns of different lengths. With the gun positioned in the gun case, the muzzle of the gun will be received within the tubular member **30**. By grasping the end cap **35** in hand said

tubular member is readily rotated to be threaded inwardly or outwardly of said sleeve **20** to position the end cap to rest against the end of the muzzle of the gun to very nicely and snugly retain the gun within the gun case. The entire construction of the applicant's device provides a fully sealed extension which retains the muzzle of the gun in a completely sealed condition.

Applicant's extensible device has particular importance in the sale of a gun case in enabling a dealer or retailer to carry a gun case of a common length which in embodying the applicant's device makes such a gun case readily adaptable to be used with guns of various lengths.

Thus the applicant has provided a very efficient and simply constructed extensible device for use in connection with a gun case as an integral portion thereof during the process of its manufacture or as an attachment readily attachable to a gun case to be made integral therewith.

It will of course be understood that various changes may be made in the form, details, arrangement and proportions of the parts, without departing from the scope of applicant's invention, which, generally stated, consists in a device capable of carrying out the objects above set forth, in the parts and combinations of parts disclosed and defined in the appended claims.

What is claimed is:

1. An extensible attachment for a gun case having in combination,
- an internally threaded sleeve, said sleeve having a portion of reduced outer diameter forming a shoulder with the remaining portion thereof,
- an open-ended annular slot extending inwardly axially of said shoulder,
- the muzzle end portion of a gun case embracing said reduced portion of said sleeve and extending into said annular slot,
- a locking ring encircling said end portion of said gun case and said sleeve portion embraced thereby,
- an elongated threaded tubular member receivable in said sleeve for axial movement thereof, and
- means sealing the free end of said tubular member.

2. An extensible device in connection with a gun case having in combination,
- an internally threaded sleeve, said sleeve having a portion of reduced outer diameter forming a shoulder with a remaining portion of said sleeve,
- an open-ended annular slot extending inwardly axially of said shoulder,
- an annular rib formed about the free end portion of said reduced portion of said sleeve,
- the muzzle end portion of said gun case overlying said reduced portion of said sleeve and extending inwardly of said annular slot, said annular rib about said reduced portion of said sleeve forming an annular bulge about said overlying portion of said gun case,
- a locking ring about said gun case disposed between said annular bulge and said shoulder for locking engagement between said end portion of said gun case and said reduced portion of said sleeve,
- an elongated tubular member threaded within said sleeve for axial movement thereof, and
- means sealing the free end of said tubular member.

3. The structure set forth in claim 2,
- said means comprising an end cap and an apertured radial projection from said end cap forming a hanger.

4. An extensible device in connection with a gun case having in combination,
- a gun case,
- a threaded sleeve embraced by the muzzle end portion of said gun case,
- means locking the engagement of said portion of said gun case and said sleeve,
- a threaded elongated member having a bore therein to accommodate the muzzle of a gun receivable within said sleeve, and
- said elongated member being threaded within said sleeve for an infinite number of positions axially of said sleeve.

5. An extensible device in connection with a gun case having in combination,
- a gun case,
- a sleeve embraced by the muzzle end portion of said gun case,
- means encircling said portion of said gun case embracing said sleeve for locking engagement therebetween,
- an elongated tubular member of a size to accommodate the muzzle of a gun therein threaded into said sleeve, and
- means sealing the free end of said tubular member.

6. The structure set forth in claim 5,
- said sleeve having a rib thereabout bulging the portion of said gun case thereabout, and
- a shoulder about said sleeve spaced from said rib having an open-ended annular slot extending axially thereof, and said slot receiving therein an end portion of said gun case.

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