

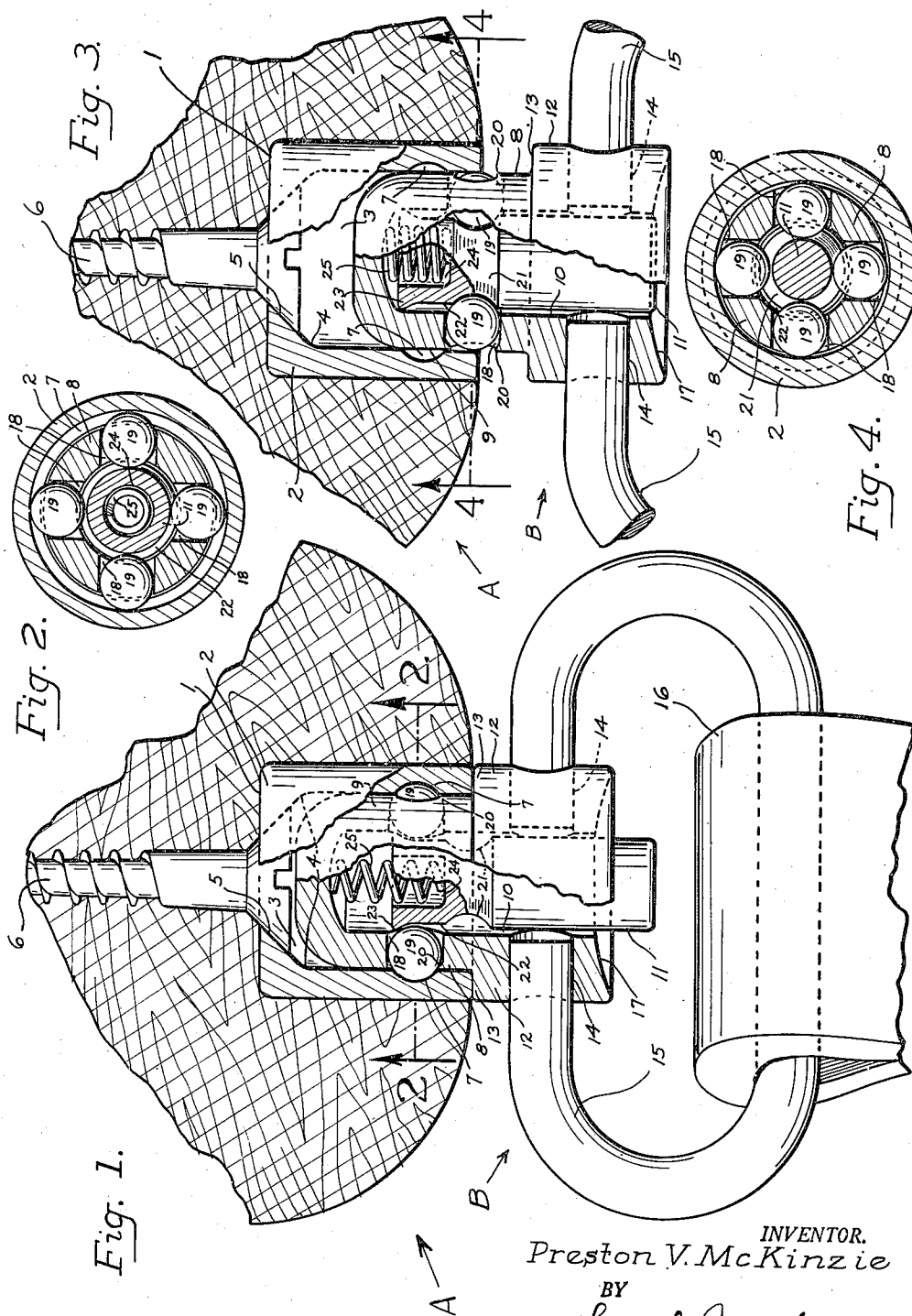
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DETACHABLE GUN SLING SWIVEL

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DETACHABLE GUN SLING SWIVEL

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This invention, in the broadest sense, relates to sling strap holding devices and, particularly, to detachable sling strap swivels used with guns.

By way of preface to the objects of my invention, it is pointed out that many guns and particularly those used for hunting purposes are not provided with sling straps and that most guns which are provided with sling straps have their swivels permanently attached to the under part of the gun stock and the forearm portion of the gun. It is well recognized that a sling strap for a gun is a desirable accessory and is used to carry the gun when traveling in a hunting area or to assist in steadying the gun during its firing. However, many gun owners prefer to store their guns either in display cases or on walls for decorative purposes and desire to have their guns displayed without a gun sling, and with the present and ordinary type of swivels, not being removable, they project from the under part of the gun stock and forearm thereby detracting from the display even if the strap is removed from these stationary swivels. It is also often desirable to quickly disengage either one or both ends of the gun sling from the gun, but where the gun swivel is permanently affixed to the gun, the only possible way of removing the strap is by unbuckling the same and removing it from the loops or bails which are a part of the swivels.

It is, therefore, the principal object of my invention to provide swivels which can readily be disengaged from a gun and thus permit the freeing of one or both ends of a sling strap, if desired, together with the depending swivels, or to secure a sling strap and swivels to the gun for firing or carrying purposes.

In order to carry out the principal object of my invention and as a corollary thereto, another object of the invention is to provide means in a gun to which a pair of sling strap swivels may be releasably but securely locked.

Another object of the invention is to provide a pair of swivels which, in practically all respects, possesses the same characteristics as a standard type of fixed gun swivel but which can readily be disengaged from a gun.

Still another object of my invention is to provide a pair of detachable swivels which possesses means for readily detaching the same from the gun, but which prevents accidental or casual disengagement therefrom.

Additional objects and features of the invention will readily come to mind as the detailed description of the invention is unfolded and which may be in general summed up by the creation of a

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detachable sling strap swivel for guns which is simple but durable in construction and, while inexpensive, is practical and efficient to use.

The accompanying drawing which forms a part of this specification illustrates the preferred structural features of my invention and for a complete understanding thereof the detailed description, which follows, must be read in connection with the disclosure in said drawing wherein identical reference characters indicate corresponding parts and in which:

Fig. 1 is an elevational view of my invention, partly in cross section and partly broken away, to show the structural characteristics of the invention and its relation to a gun, with the swivel assembly in locked position;

Fig. 2 is a section, taken along line 2-2 of Fig. 1 and looking in the direction indicated, showing the position of the spherical members in relation to the annular groove formed in the swivel receiving casing, when the swivel assembly is in locked position;

Fig. 3 is an elevational view of the invention, partly in cross section and partly broken away, showing the structural characteristics of the invention prior to the insertion of the swivel assembly into the swivel receiving casing, with the releasing pin or button compressed inwardly to further compress the resilient member; and

Fig. 4 is a sectional view taken along line 4-4 of Fig. 3 and looking in the direction indicated, showing the position of the spherical members with relation to the releasing pin or button and the swivel receiving casing prior to the insertion of the swivel assembly into said casing.

Referring now to the figures in the drawing, reference character A represents the portion of a gun having the usual wooden stock and forearm portion. Since the swivels used with the stock and the forearm portion are, in all respects, the same except for the method of fastening, the portion of the gun herein represented will be considered as the stock for the purposes of description; and since each swivel assembly possesses the same structural characteristics and performs identical functions, the description of one will suffice for both. A cylindrical socket or recess 1 is formed within the under portion of the stock A in substantially the same location customarily used for a fixed swivel. A swivel receiving casing 2 is placed snugly within this recess so that it does not protrude beyond the surface of the stock A.

The interior 3 of casing 2 is cylindrical in con-

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tour and has the interior portion of the base 4 rounded to correspond to the contour of the outside surface of the swivel member shortly to be described. An axial opening 5 is provided through the base 4, and a screw head receiving counter-sink surrounds this opening to thus provide a smooth interior base after a flat headed threadable member 6 secures the swivel receiving casing to the stock. A similarly satisfactory method of anchoring a swivel receiving casing to the forearm is provided. A semi-spherical annular groove 7 is formed within the interior of casing 2 adjacent to the open end of the casing. While in the preferred embodiment, the groove is shown as semi-spherical in cross sectional contour, it would necessarily have a contour complementary to the outside contour of the locking members which are a part of the swivel assembly yet to be described if the same were not spherical bodies.

The swivel assembly, generally designated by reference character B, is shown in Fig. 1 locked in position in swivel receiving casing 2 and in Fig. 3 as disengaged from casing 2. The swivel assembly B consists of a cylindrical member 8 which is telescopically movable in relation to the interior of casing 2. The outer contour of its base 9 is complementary to the inner contour of base 4. Member 8 has an axially positioned deep cylindrical cavity 10 therein adapted to receive a releasing pin or button 11, the structural characteristic of which will be described forthwith. Member 8 has a head 12, the annular shoulder 13 of which is seated upon the top of casing 2 when the swivel assembly B is in locked position. A pair of transverse openings 14, in direct alignment with each other, passes through the head 12 and enters cavity 10. These openings are adapted to receive and movably secure a loop or bail 15 therein, which, in turn, receives a sling-strap 16, the structural characteristics of which are well-known and need, therefore, not be described in detail. A concave surface 17 is formed on the top of the head 12 and surrounds the top of cavity 10. Also formed in member 8 is a plurality of transversely positioned openings 18, all of which are positioned in the same plane, and each of which is adapted to receive a spherical locking member, such as bearings 19. The outer periphery of each of these openings is slightly crimped or beaded, as shown at 20, to prevent the complete extrusion of the spherical bodies through said openings.

Releasing pin or button 11 is cylindrical in shape and is adapted to move freely within cavity 10 of member 8. A peripheral groove 21 is formed approximately medial of the pin 11 and possesses the same or the equivalent cross-sectional contours of the annular groove formed in casing 2. This groove 21 is adapted to receive the spherical locking members, such as bearings 19 when the swivel assembly B is in the position shown in Fig. 3. Immediately below groove 21, pin 11 has a somewhat frusto-conical tapered peripheral surface 22 ending in a band 23.

A recess 24 is formed in the base of pin 11, and a resilient element, such as a coil spring 25, fits therein, and when the releasing pin 11 is placed into normal position within cavity 10 and in co-operative relation to the spherical members 19, spring 25 is maintained in a partially compressed condition, and the spherical members 19 are retained in openings 18 and in annular groove 7 of casing 2 locking the swivel assembly B to the casing as shown in Fig. 2. When pressure is applied to the pin 11, spring 25 is further com-

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pressed, as shown in Fig. 3, and the spherical members 19 are thereby permitted to leave annular groove 7 and enter the peripheral groove 21 formed in pin 11 releasing the swivel assembly B from casing 2.

It should be noted that the swivel assembly B, when in locked position to casing 2, is capable of rotation, the groove 7 and openings 18 providing a bearing race for the swivel assembly.

It is understood that changes may be made in the structural characteristics of the invention, as disclosed herein without departing from its spirit. It is, therefore, pointed out that the invention herein described and illustrated is to be considered as not limited thereby but only by the scope of the following claims, in which I claim:

1. In a sling strap anchoring device, in combination with a gun having a recess within the under part of its stock and the forearm respectively, a swivel receiving casing confined within each of said recesses, each of said casings having an annular groove formed within its interior, a strap holding swivel member movably disposed within each of said casings, each of said members having an axially disposed cavity therein and a plurality of openings through its wall in equally spaced lateral alignment with each other, and means associated with each of said members and cooperating through said plurality of openings and disposed in said annular groove formed in each of said casings to releasably anchor said member to their respective casings.

2. The combination of elements defined in claim 1 wherein the releasable anchoring means includes a plurality of spherical elements confined within the openings formed through the wall of the respective swivel members and confinable partially within the annular groove of the respective casings when the swivel member is locked to its respective casing.

3. In a sling strap anchoring device, a swivel member adapted to telescopically enter into a casing and be releasably locked in rotatable relations thereto, said swivel member having an axially disposed cavity therein and a plurality of transversely and laterally disposed equally spaced openings formed through the walls of said member, a plurality of spherical bodies movable within said openings and adapted to engage with the casing, and means movable within the cavity of said swivel member adapted to normally retain said spherical bodies in engagement with said casing.

4. In a sling strap anchoring device, a sling strap swivel having a body portion, a strap supporting bail swingably secured thereto, said body portion having an axially disposed cavity therein and a plurality of openings in its wall, a plurality of spherical bodies partially confined in said openings and transversely movable relative to the cavity; and means confined within the cavity for controlling the transverse movement of said bodies.

5. In a sling strap swivel, in combination with a casing having an annular groove therein, a swivel member, a strap supporting bail secured thereto, the body portion of said swivel member having an axially disposed cavity therein and a plurality of openings in its wall, a plurality of spherical bodies transversely movable within the openings in said member relative to the annular groove of the casing, a releasing pin movably disposed within said cavity and co-operatively as-

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sociated with said spherical bodies, and resilient means compressed within said cavity and against said pin to normally retain said pin against said spherical bodies and confine them in the annular groove of said casing.

6. The combination of elements defined in claim 5 wherein said releasing pin has a peripheral groove midway of its body and an inverted frusto-conical base portion to control the positions of the spherical bodies with relation to the swivel member and casing.

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