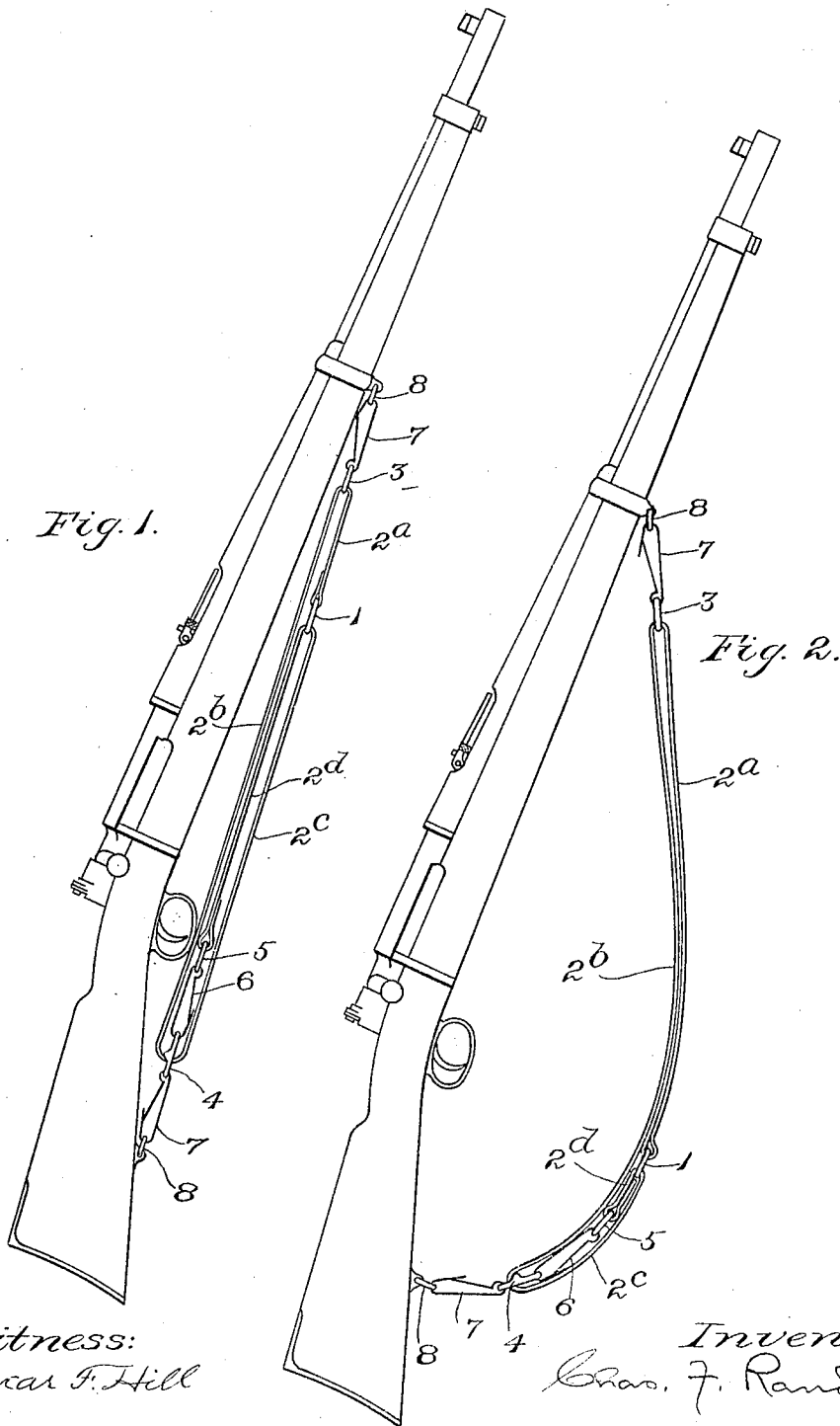


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ADJUSTABLE STRAP FOR GUN SLINGS AND THE LIKE.
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1,292,875.

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Witness:
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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES F. RANDALL, a citizen of the United States, residing at Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Adjustable Straps for Gun-Slings and the like, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention has relation to adjustable straps, slings, fastening or binding elements, and connectors, of the differential class. The differential action of articles of the class intended may be and is provided for in practice in a variety of ways, but it may be stated that, in general, an article of such class comprises a strip of material, for instance webbing or leather, that is doubled back upon itself lengthwise to produce opposite terminal return-bends, with a return portion of one of such bends engaged with an intermediate return-bend formed in a return portion of the opposing terminal return-bend, the assembled or made-up strap in its entirety constituting a closed loop and having the characteristic that it may be increased or reduced in its effective length between one terminal return-bend and the other through the differential action accompanying a shift of the said intermediate return-bend toward one terminal return-bend or the other as the case may be.

The invention is applicable in the case of gun-slings and the like, although it is by no means necessarily restricted to application to such articles. One object of the invention is to facilitate the application of a differential gun-sling, or the like, to a rifle, etc., and its removal therefrom and to enable such application or removal to be effected almost instantaneously and without it being necessary to thread the strap or strip lengthwise through successive swivels or the like and connected up in the shape of a sling at the time of making application of it. Another object of the invention is to improve the construction of the article.

An embodiment of the invention in a gun-sling, and the application of the latter to a rifle, are shown in the drawings, in which latter Figure 1 shows the sling in shortened and tight condition, and Fig. 2 shows it in extended and loose condition.

In the case of the particular differential formation that in this instance is shown in the drawings, the strip has attached to one extremity thereof a runner-link 1 that is located at an intermediate point in the length of the strap. From the runner-link 1 a length 2^a of the strip extends in one direction to and through a connector-link 3 at one end of the strap, the strip being doubled back upon itself around a cross-bar of the said connector-link so as to produce one of the terminal return-bends. The length 2^a constitutes one of the return-portions of such terminal return-bend. From the connector-link 3 the strip extends in a length 2^b in the opposite direction lengthwise of the strap or sling to a second connector-link 4, which is located at the other end of the strap or sling, and through which it passes, the strip being doubled upon itself around a cross-bar of such connector-link to form the second terminal return-bend. The strip extends in a length 2^c in the first direction from connector-link 4 to the runner-link 1, through which it passes from the outside inward. Length 2^c constitutes a return-portion of the second terminal return-bend. The strip is doubled back upon itself around a cross-bar of the said runner-link to form the intermediate return-bend, and extends in a length 2^d between the lengths 2^b, 2^c, within the second terminal bend to and is connected with the connector-link 4 by means of an end-link 5 that is attached to this extremity of the strip, and a snap-hook 6 connected with the said end-link and detachably engaging with the connector-link 4. The effective length of the strap is lessened through shift or movement of the runner-link 1 toward connector-link 3. This shift or movement will be effected, usually, by pulling manually upon one or another of the lengths of strip, as upon length 2^b of the strip in the direction from link 3 toward link 4. On account of the differential action the intermediate advance of runner-link 1 toward the connector-link 3 draws the strip through the connector-link 4 twice as fast as it pays it out through link 3 into the length 2^b. Thus the net result will be a reduction in the effective length of the made-up strap as a whole, and a tightening of the strap when used as a sling, connector, or binder. When the runner-link is moved

in the direction away from the connector-link 3, the differential action will cause slack to be paid out from the loop constituted of lengths 2^c , 2^d , and the intermediate return-bend, with the net result that the effective length of the strap will be increased as in Fig. 2.

In use, the strap or sling will retain the adjustment which has been given to it. Its effective length secured by any given adjustment will be unaffected by tensile strain applied at the terminal return-bends and acting longitudinally of the strap as a whole.

In carrying my invention into effect I provide the opposite ends of the made-up strap with detachable connection-means, enabling the strap in assembled and made-up condition to be quickly or instantaneously applied. Such means comprises snap-hooks 7, 7, which are secured to the respective connector-links 3, 4, and are adapted to be engaged with the swivels 8, 8, of a rifle or other gun, or with other eyes, loops, links or the like, or in some cases with each other, according to the place of use and manner of application. The said snap-connections enable the assembled and made-up strap to be applied and engaged readily and conveniently in its made-up state, by hooking snap-hooks 7, 7, to the said swivels, etc., and to be disengaged and removed with equal facility in the said state by unhooking the said snap-hooks from the swivels, etc. Thereby it is rendered unnecessary to thread the strip endwise through the swivels or other eyes or the like, and also through the connector-link, in assembling and applying the strap, or to withdraw the strip endwise through the swivels or the like and the connector-link in effecting the removal of the strap.

Another feature of the invention consists in making the connector-link 4 double, that is, with two openings, and in combining the strip therewith by passing the corresponding return-bend through the opening of said connector-link which is next adjacent the corresponding snap-hook 7, *i. e.*, between the middle cross-bar and the cross-bar with which the said snap-hook is engaged, and engaging the snap-hook 6 in the other opening, namely, with the third cross-bar of such connector-link. The length 2^d of the strip, and the link 5 and snap-hook 6, extend between the lengths 2^b , 2^c , of the strip, with the snap-hook contained within the second return-bend and inclosed between portions 2^b , 2^c . As a result of forming connector-link 4 with two eyes and connecting the snap-hook 6 with the inner one thereof, such hook is made readily accessible for manipu-

lation and may conveniently be engaged with and disengaged from the said connector-link. The employment of the disconnectible snap-connection 6 renders it convenient to disengage such connection from the link 4 preparatory to opening out the strap in straight extended condition, as sometimes is desired, and in subsequently connecting the strap up in made-up closed-loop condition.

I claim as my invention:—

1. A differential adjustable strap comprising terminal return-bends, an intermediate return-bend, a return-portion extending from one of said terminal return-bends and engaging slidably with said intermediate return-bend, a connector-link having an outer eye through which the other terminal return-bend passes and a second eye within such return-bend, and a terminal portion extending from the intermediate return-bend within the latter terminal return-bend and connecting with said second eye.

2. A differential adjustable strap comprising terminal return-bends, an intermediate return-bend, a return-portion extending from one of said terminal return-bends and engaging slidably with said intermediate return-bend, a connector-link having an outer eye through which the other terminal return-bend passes and a second eye within such return-bend, a terminal portion extending from the intermediate return-bend within the latter terminal return-bend, and a snap-connection, also within such return-bend, engaging said terminal portion with the said second eye.

3. A differential adjustable strap in closed-loop form comprising terminal return-bends, an intermediate return-bend, a return portion extending from one of said terminal return-bends and engaging slidably with said intermediate return-bend, a connector-link having an outer eye through which the other terminal return-bend passes and a second eye within such return-bend, a terminal portion extending from the intermediate return-bend within the latter terminal return-bend, a snap-connection, also within such return-bend, engaging said terminal portion with the said second eye, and snap-connections combined with said connector-link and with the opposite return-bend for strap-engaging purposes.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES F. RANDALL.

Witnesses:

ELLEN O. SPRING,
ELSIE A. BARTZSCH.