July 3, 1962 L. P. MONFARDINI 3,042,026

CERVICAL COLLARS

Original Filed March 24, 1959

Fig. 1.

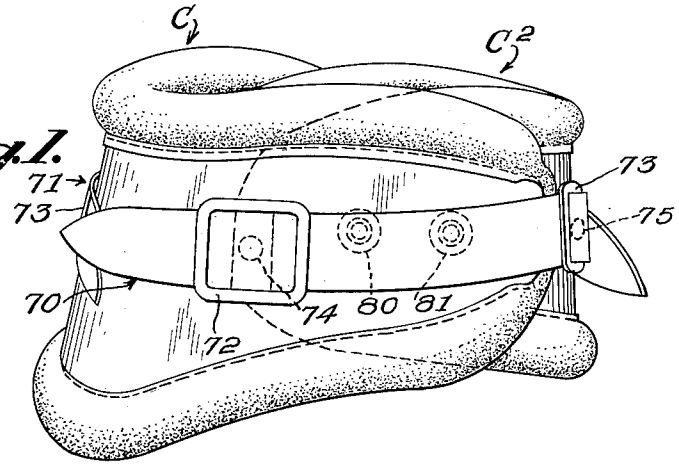


Fig. 2.

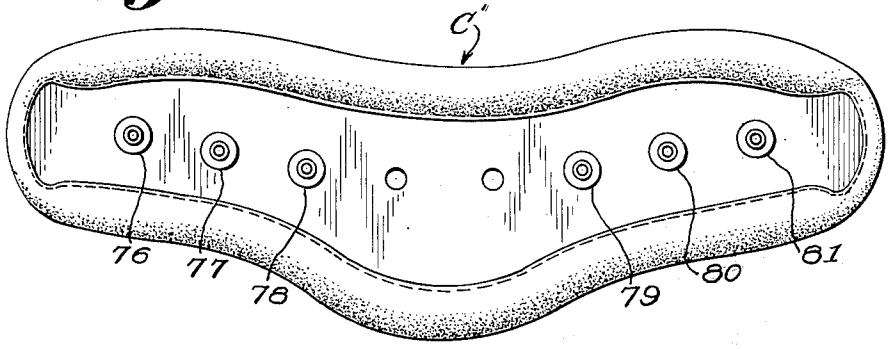
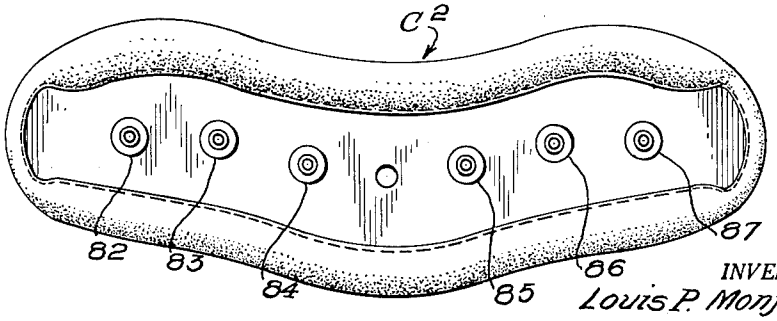


Fig. 3.



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CERVICAL COLLARS

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Original application Mar. 24, 1959, Ser. No. 801,540. Divided and this application Nov. 7, 1960, Ser. No. 67,772

2 Claims. (Cl. 128—75)

This is a division of prior co-pending application Serial No. 801,540, filed March 24, 1959, for Cervical Collars, wherein the same is comprised of interchangeable units in the provision of numerous variations of adjustable and reversible collars.

Collars of this type are for use in pathological conditions, such as arthritis, "wry neck" or torticollis, traumatic conditions, subluxations and dislocations, muscular strains, and for post-fracture treatment and particularly with the present invention a specialized structure for a particular anterior or posterior neck condition.

Heretofore no cervical collars of the reversible type have been provided with diametrically opposed vertical units adjustable with substantial precision to accommodate varying anterior and/or posterior angular neck formations of individuals. Such angular measurements and prescribed collar unit adjustments are extremely important to treat some neck conditions and may be made by the treating surgeon or doctor, who has determined the exact unit adjustments for the required results and the adjustable units of the present invention are made to be set to provide the physician's calculated angular positions for carefully calculated respective normal anterior and/or posterior head and neck angles in accordance with the neck injury being treated.

An object of this invention is to provide a cervical collar having units adaptable to be combined in various arrangements for the most efficient treatment of the aforementioned pathological conditions or involvements in either the anterior neck triangle or the posterior neck triangle.

Another object is to improve the structural features of prior cervical collars of this type by elimination of certain floating fastener elements and of slot formations in the collar material subject to tear, such as previously used and which tend to affect the durability of the collar material and accurate adjustments of the collar units.

Another object is to provide a reversible cervical collar having novel diametrically opposed units each adapted to be diametrically adjusted and reversible to obtain a plurality of adjustments for both flexion and extension.

A further object is to provide a novel kit of cervical collar parts for doctors and hospitals adapted to be formed into interchangeable units, to thereby form partially adjustable, completely adjustable and non-adjustable collars as the doctor prescribes.

The foregoing and other objects and advantages of the present invention will appear more fully hereinafter from a consideration of the detailed description which follows, taken with the accompanying drawings wherein one embodiment of the invention is illustrated. It is to be expressly understood, however, that the drawings are for the purpose of illustration only and are not designed as a definition of the limits of the invention. Reference for this latter purpose should be had to the appended claims.

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In the drawings, wherein like reference characters refer to like parts throughout the several views:

FIGURE 1 is a perspective view of a novel reversible collar with two units of different size arranged in diametric opposition to each other with the free end of each unit alternately overlapped and arranged for diametrical adjustment to neck size and reversible for flexion and extension.

FIGURE 2 is an outer flat plan view of the larger of said units of FIGURE 1; and

FIGURE 3 is an outer flat plan view of the smaller of said units of FIGURE 1.

With the drawings of the prior co-pending application and FIGURES 1, 2 and 3 of the present divisional application, there are provided several distinct cervical collars, comprising units A and B, a collar comprising units B′ and C and a collar comprising C and C′ (C1 and C2 in the present application). As illustrated in the present application unit C2 is similar to unit C of the co-pending parent application.

Referring specifically to FIGURES 1, 2 and 3 of the present invention, the same includes a pair of diametrically articulatable connectable units C1 and C2 of relatively different size in which all adjusting elements, such as illustrated in the parent application are eliminated. Each of these units is made of a single section and these sections when connected together in their respective neck enclosing diametrically opposed relationship are arranged to be diametrically adjustable by individual or separate strap means 70 and 71 on which are slidably mounted buckles 72 and 73, each with a central female snap fastener element 74 and 75. The fastener elements 74 and 75 each cooperate with a plurality of male snap fastener elements 76, 77 and 78, and 79, 80 and 81; and 82, 83 and 84, and 85, 86 and 87, respectively, on opposite sides of the units C1 and C2, when their free ends are alternately lapped to provide the said articulated connection.

Thus with units A, B, B′, C′ and C2 available, there are provided many different collar combinations. Units C1 and C2 are single section collar units and may be variably combined with each other, used singly in a non-diametrically opposed arrangement to provide a small collar for children, or assembled alternately with any of the vertical adjustable units of the above identified co-pending application as required for larger collars as required. Thus with five different units to a kit, such as A, B, B′, C′ and C2 many different forms of cervical collars may be created and such kits may be distributed to physicians, surgeons and hospitals to provide for cervical collers to suit most all emergencies. Also, similar or identical units may be connected together, if desired.

While the foregoing specification describes and the drawings illustrate the specific details of this invention, it is to be expressly understood that the same is not limited by these details and is therefore susceptible to changes and modifications within the scope of the appended claims without a departure from the spirit of the invention.

I claim:

1. A cervical collar comprising a pair of diametrically opposed units selected from an assortment of units of various sizes, each unit being formed wide at the center and tapering to relatively narrow opposite end portions, cushion binding around the peripheral opposite edges of each unit, each unit having mounted in the surface thereof a plurality of horizontally spaced male snap fastener ele-

ments, said male fastener elements being exposed when said opposed units are positioned in diametrically opposed relation with their respective narrow ends in alternately lapped relation to form said annular collar, and detachable flexible strap means detachably mounted around each side of the assorted units of the collar over said lapped ends having an adjustable buckle with a female snap fastener element adjacent each end selectively engaged with a respectively adjacent male fastener element, to

thereby join the units together to form said annular collar.

2. The cervical collar described in claim 1, wherein one of said units is wider than the other.

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