

United States Patent

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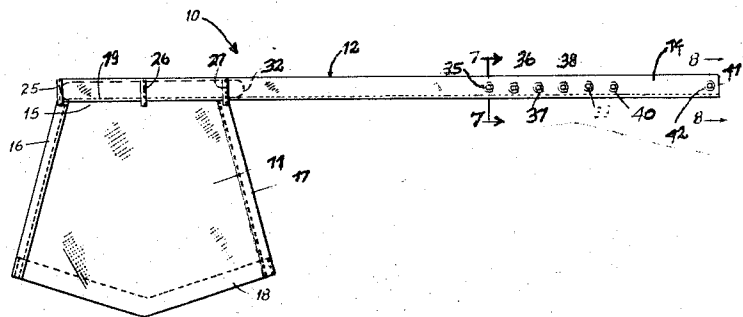
[56]	References Cited		
	UNITED STATES PATENTS		
572,751	12/1896	Hanna	2/2
916,577	3/1909	Morton	2/237
1,695,709	12/1928	Field	2/2
1,759,423	5/1930	Straus	2/48
2,021,711	11/1935	Abrams	2/76
	FOREIGN PATENTS		
12,211	1933	Australia	2/237

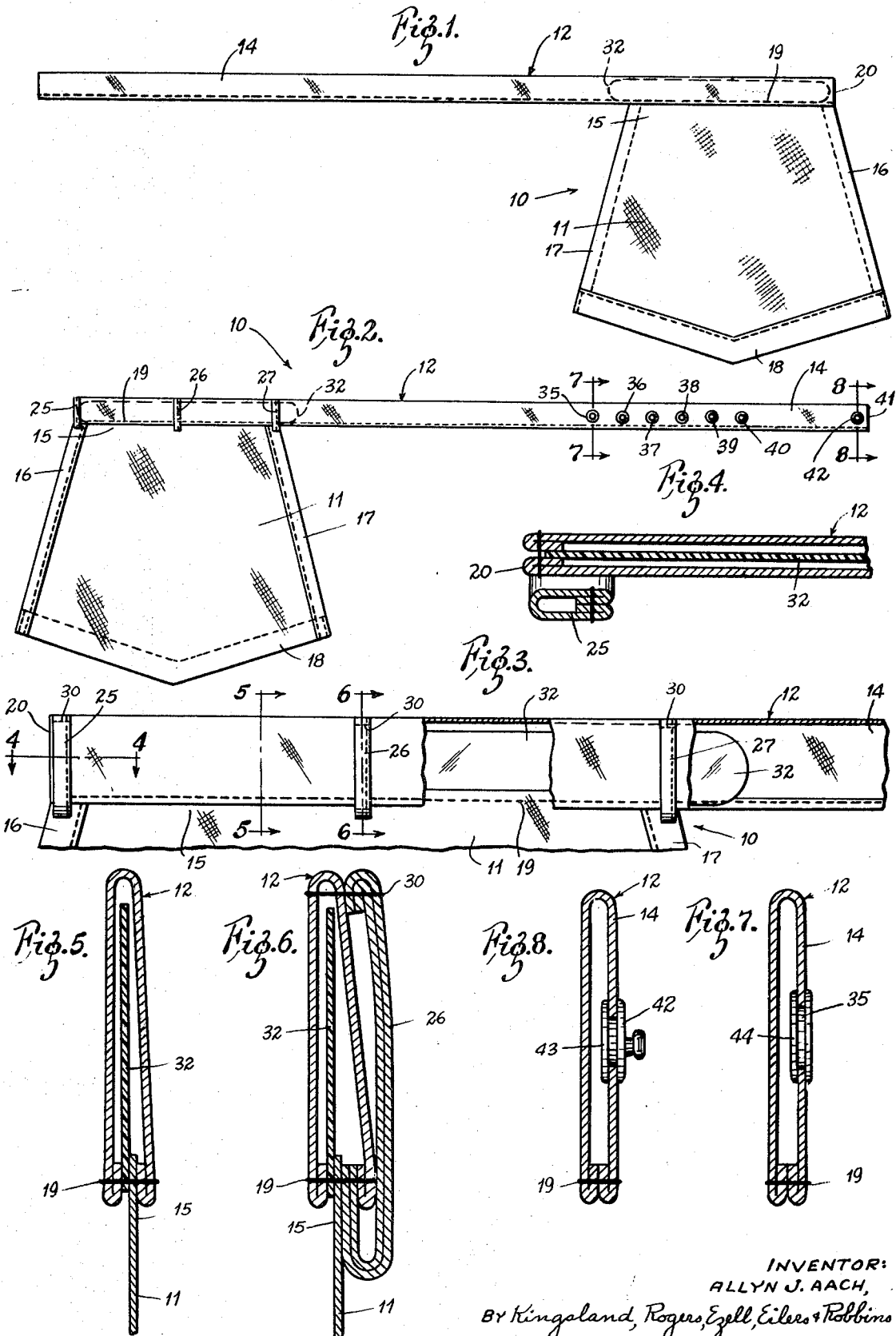
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[54] ADJUSTABLE APRON
8 Claims, 12 Drawing Figs.

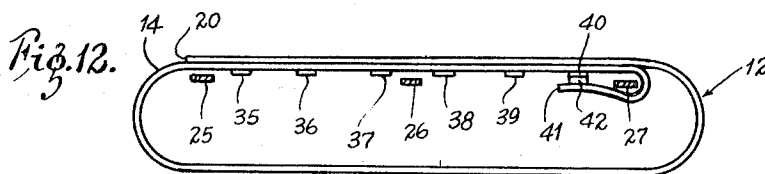
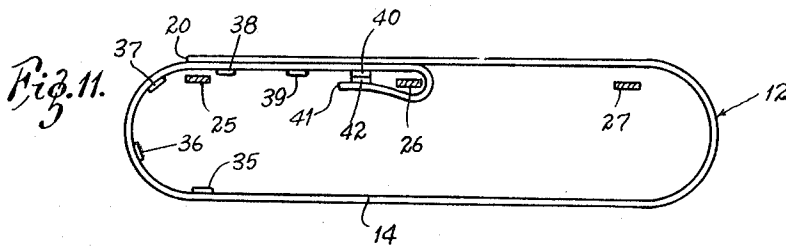
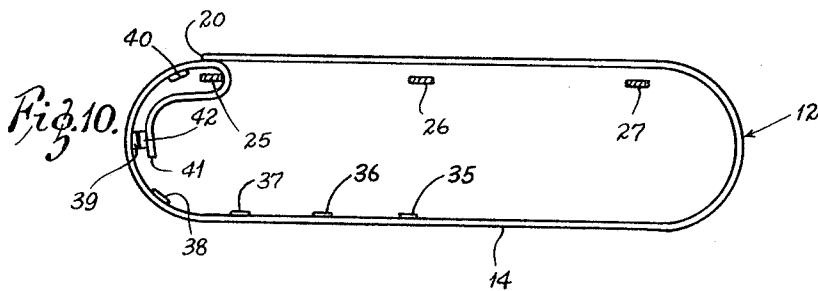
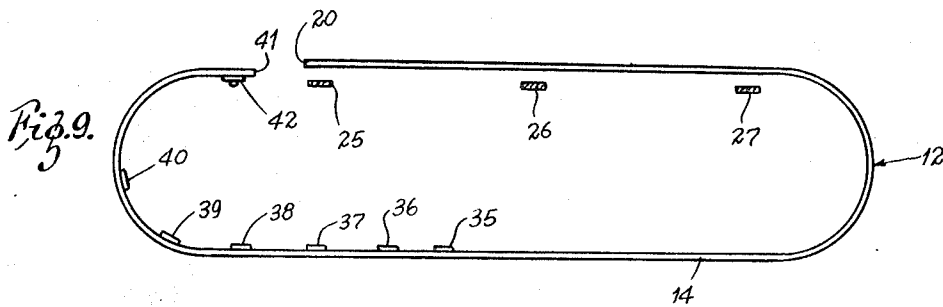
[52] U.S. Cl..... 2/48,
2/52, 2/76
[51] Int. Cl..... A41d 13/04
[50] Field of Search..... 2/52, 48,
221, 237, 76, 311, 325

ABSTRACT: A size adjustment device comprising a single band adapted to be threaded through selected ones of a plurality of loops on a garment joined to the band to achieve coarse size adjustments. The band is then foldable back on itself and its free end is releasably engaged with one of a plurality of connectors for relatively fine size adjustments.





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ADJUSTABLE APRON

BRIEF DESCRIPTION OF THE INVENTION

This invention relates to a size adjustment device such as might be incorporated in a garment, for example an apron, that is designed to be secured about the waist and which is adjustable over a wide range of sizes without the use of double ties, pin belts and the like. The garment includes a body portion and a single waistband attached to the body portion and extending beyond one of the edges of the body portion. A plurality of belt loops are spaced across the front of the garment, and a plurality of connectors, such as snaps or other closures are spaced along the extended portion of the waistband. A single connector, such as a complementary snap is provided at the end of the band for releasably engaging a selected one of the other connectors. The garment is designed to be worn with the belt loops across the front of the body preferably to the inside with the waistband extension brought around the waist and threaded through one or more of the belt loops depending on the waist size of the wearer. The end of the waistband extension is folded over the last belt loop through which the waistband is threaded and back on itself. The end of the connector is then connected to the appropriate one of the other connectors. The plurality of belt loops thus provide a coarse size adjustment, while the plurality of connectors provide a fine size adjustment. The selectivity provided by the plurality of belt loops and connectors makes adjustment to an extremely wide range of sizes possible without the use of unsightly ties. The end result is a very versatile garment designed to fit a wide range of sizes that is easy to put on, is easy to adjust, and that presents a very neat appearance.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a front elevation view of the preferred embodiment of this invention.

FIG. 2 is a rear elevation view of the invention of FIG. 1.

FIG. 3 is an enlarged fragmentary view of the upper left portion of FIG. 2 with parts broken away for illustration.

FIG. 4 is a view in section taken along the line 4—4 of FIG.

FIG. 5 is a view in section taken along the line 5—5 of FIG.

FIG. 6 is a view in section taken along the line 6—6 of FIG.

FIG. 7 is a view in section taken along the line 7—7 of FIG.

FIG. 8 is a view in section taken along the line 8—8 of FIG.

FIGS. 9 through 12 are schematic views illustrating some of the various positions to which the garment of this invention may be adjusted.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring primarily to FIGS. 1, 2 and 3 of the drawing, there is shown a garment such as an apron 10 having a body portion such as a skirt 11 and a waistband 12. The waistband 12 is of one-piece construction and has a tab portion 14 extending beyond the edge of the skirt 11. The skirt 11 has a top 15, sides 16 and 17 and a bottom 18. The waistband 12 is sewn along the top 15 of the skirt 11 with stitching 19 and its end 20 flush with the side edge 16 of the skirt 11. The distance that the tab portion 14 extends beyond the other side edge 17 of the skirt 11 depends on the variations in size to which the garment must be adjustable. This will be explained in more detail below.

Spaced along the waistband 12 are a series of belt loops 25, 26, and 27. The belt loops 25, 26 and 27 are sewn to the waistband 12 with stitching 19, and 30 with the belt loops 25 and 27 positioned adjacent the side edges 16 and 17 of the skirt 11 and the belt loop 26, positioned halfway between the

purpose loops 25 and 27. A thin stiffener 32 approximately the same length as the top 15 of the skirt 11 and width as the waistband 12 is sewn into the waistband 12 along the bottom edge of the waistband 12 and the top edge 15 of the skirt 11 with the stitching 19. The purpose of the stiffener 32 is to add rigidity to the waistband 12, thus presenting a neater appearance. The stiffener 32 should be thin enough and should be of a suitable material such as plastic to allow it to flex about the waist of a wearer. Thus, as shown in FIGS. 5 through 8, the stitching 19 extends the entire length of the waistband 12 and serves the multiple purpose function of attaching the top edge 15 of the skirt 11, the bottom edge of the waistband 12, the bottom ends of the belt loops 25, 26 and 27 and the bottom edge of the stiffener 32 together. If desired, the stiffener may be omitted.

A series of connectors such as female snap connectors 35, 36, 37, 38, 39, and 40 are located an equal distance apart toward the end 41 of the tab portion 14 of the waistband 12. Spaced from the last of the female snap connectors 40 and located approximately at the end 41 of the tab portion 14 of the waistband 12, is a single connector such as a male snap connector (or other) 42. As shown in FIG. 4, the waistband 12 is of a conventional double thickness design which allows the snap connectors 35—40 and 42 to be fastened to the rear wall only of the waistband 12. Therefore, the back sides 43 and 44 of the snap connectors 35—40 and 42 respectively are hidden between the walls of the waistband 12 presenting a better appearance. The length of the waistband 12 and the relative spacing of the belt loops 25, 26, and 27 and the snap connectors 35—40 and 42 will be further explained below.

The sides 16 and 17 and the bottom 18 of the skirt 11 may be hemmed as shown in FIGS. 1 and 2.

OPERATION

FIGS. 9 through 12 illustrate some of the various adjustments of the garment that can be made to fit people of a wide range of waist sizes. The waistband 12 is positioned against the waist with the belt loops 25, 26 and 27 to the inside against the front of the body with the tab portion 14 extending to the right of the person wearing the garment. The tab portion 14 is then wrapped around the waist and the end 41 of the tab portion 14 is slipped through the appropriate number of the belt loops 25, 26 and 27. The end 41 of the tab portion 14 is then folded over the last of the belt loops through which it was threaded and back on itself. The snap connector 42 is then connected to the appropriate one of the snap connectors 35—40 fitting the garment snugly and comfortably around the waist.

As can be seen, this arrangement of the belt loops 25, 26 and 27 and the snap connectors 35—40 and 42 provides for a wide range of sizes to which the garment may be adjusted. The number of the belt loops 25, 26, and 27 through which the tab portion 14 may be threaded provides a relatively coarse size adjustment, while the plurality of the snap connectors 35—40 provides a relatively fine size adjustment.

FIG. 10 illustrates the garment adjusted to one of the largest sizes. The tab portion 14 is threaded through just the first belt loop 25 and then folded back so that the snap connector 42 is connected to one of the last snap connectors 39. FIG. 11 illustrates the garment adjusted to one of the intermediate sizes with the tab portion 14 threaded through the belt loops 25 and 26 and then folded back so that the snap connector 42 is connected to the snap connector 40. FIG. 12 illustrates the garment adjusted to one of the small sizes with the tab portion 14 threaded through all three of the belt loops 25, 26, and 27. Obviously, the largest size possible would be with the tab portion 14 threaded through belt loop 25 only, and folded back with the snap connector 42 connected to the snap connector 40, and the smallest size possible would be with the tab portion 14 threaded through all three of the belt loops 25, 26 and 27, and folded back with the snap connector 42 connected to the snap connector 35. In the specific embodiment described herein, it was found that the three belt loops 25, 26 and 27

spaced $5\frac{1}{4}$ inch apart, the tab portion 14, 31 inches long, the snaps 35-40 spaced $1\frac{1}{2}$ inch apart beginning at a point $14\frac{1}{2}$ inch from the end 41 of the tab portion 14 and ending at a position 7 inches from the end 41 of the tab portion 14, and the snap connector 42 positioned $\frac{3}{4}$ inch from the end 41 of the tab portion 14 provides for an adjustment to every size from 28 to 42 in uniform sizes (corresponding standard dress sizes). It is contemplated that this invention can be used with other types of garments besides aprons, such as pants, jackets, skirts, coveralls, shirts, and other garments, or any article where size adjustment of the diameter of holding device is desired. Obviously, for a different type of garment or for a garment for which size adjustments other than those just mentioned are desired, it may be necessary to use a different number of belt loops and snap connectors, a different length of tab portion, or change the locations of the belt loops or snap connectors. Also, it may be necessary to change the spacing between the belt loops and between the snap connectors. The appropriate numbers, locations, and spacings can be easily determined after the design of the garment has been established.

I claim:

1. A garment designed to fit a wide range of wearer sizes comprising a body portion adapted to be positioned at the front of the wearer, a band attached to the body portion and extending from it a distance determined by the design of the garment and the size range it is to fit, a plurality of loops positioned across the front of the garment, the distance between the loops being determined by the design of the garment and the size range it is to fit, the body portion and band being adapted to encircle a wearer about which the garment is to be fitted with the band passing through one or more of the plurality of loops according to the size of the wearer, and adjustable connector means located toward the free end of the band for holding the free end of the band folded back on itself and releasably locked in place.

2. The garment of claim 2 wherein the adjustable holding means comprises a plurality of connectors attached to the band toward its free end, and a connector positioned approxi-

mately at the free end of the band and designed to mate with any one of the plurality of connectors, the distances between each of the connectors and between the connectors and the free end of the band being determined by the design of the garment and the size range it is to fit.

3. The garment of claim 3 wherein the connectors are snap fasteners.

4. An apron providing both a coarse and fine adjustment to fit a wide range of sizes and presenting a neat appearance comprising a body portion, a waistband, a portion of which is stitched to and extends across the front of the apron at the waist, the remaining portion of the band extending beyond one of the side edges of the apron, a plurality of loops extending across the front of the apron and attached to the waistband intermediate the side edges of the apron, and adjustable means located toward the free end of the waistband for holding the free end of the waistband around the waist and through and back over the last of the loops through which the waistband is threaded, the length of the extended portion of the waistband, the distance between the loops, and the degree of adjustability of the holding means being determined by the design of the apron and the size range it is to fit.

5. The apron of claim 5 wherein the adjustable holding means comprises a plurality of connectors attached to the waistband toward its free end, and a connector positioned approximately at the free end of the waistband and designed to mate with any one of the plurality of connectors, the distances between each of the connectors and between the connectors and the free end of the waistband being determined by the design of the garment and the size range it is to fit.

6. The apron of claim 6 wherein the connectors are snap fasteners.

7. The apron of claim 5 wherein the waistband is of double thickness cloth with a thin flexible stiffener enclosed in the portion of the waistband stitched to the front of the apron.

8. The apron of claim 6 wherein the waistband is of double thickness cloth and the connectors extend through only one side of the band, the backs of the connectors being hidden between the double thickness cloth.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,602,916 Dated September 7, 1971

Inventor(s) Allyn J. Aach

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Col. 1, Line 9: Change "sue" to -use-

Col. 1, Line 65: Change "10" to -19-

Col. 2, Line 1: change "purpose" to -belt-

Claim 2, line 1: change "claim 2" to -claim 1-

Claim 3, line 1: change "claim 3" to -claim 2-

Claim 5, line 1: change "claim 5" to -claim 4-

Claim 6, line 1: change "claim 6" to -claim 5-

Claim 7, line 1: change "claim 5" to -claim 4-

Claim 8, line 1: change "claim 6" to -claim 5-

Signed and sealed this 4th day of July 1972.

(SEAL)

Attest:

EDWARD M. FLETCHER, JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents