

(No Model.)

J. STONE.  
CORSET.

No. 557,713.

Patented Apr. 7, 1896.

Fig. 1

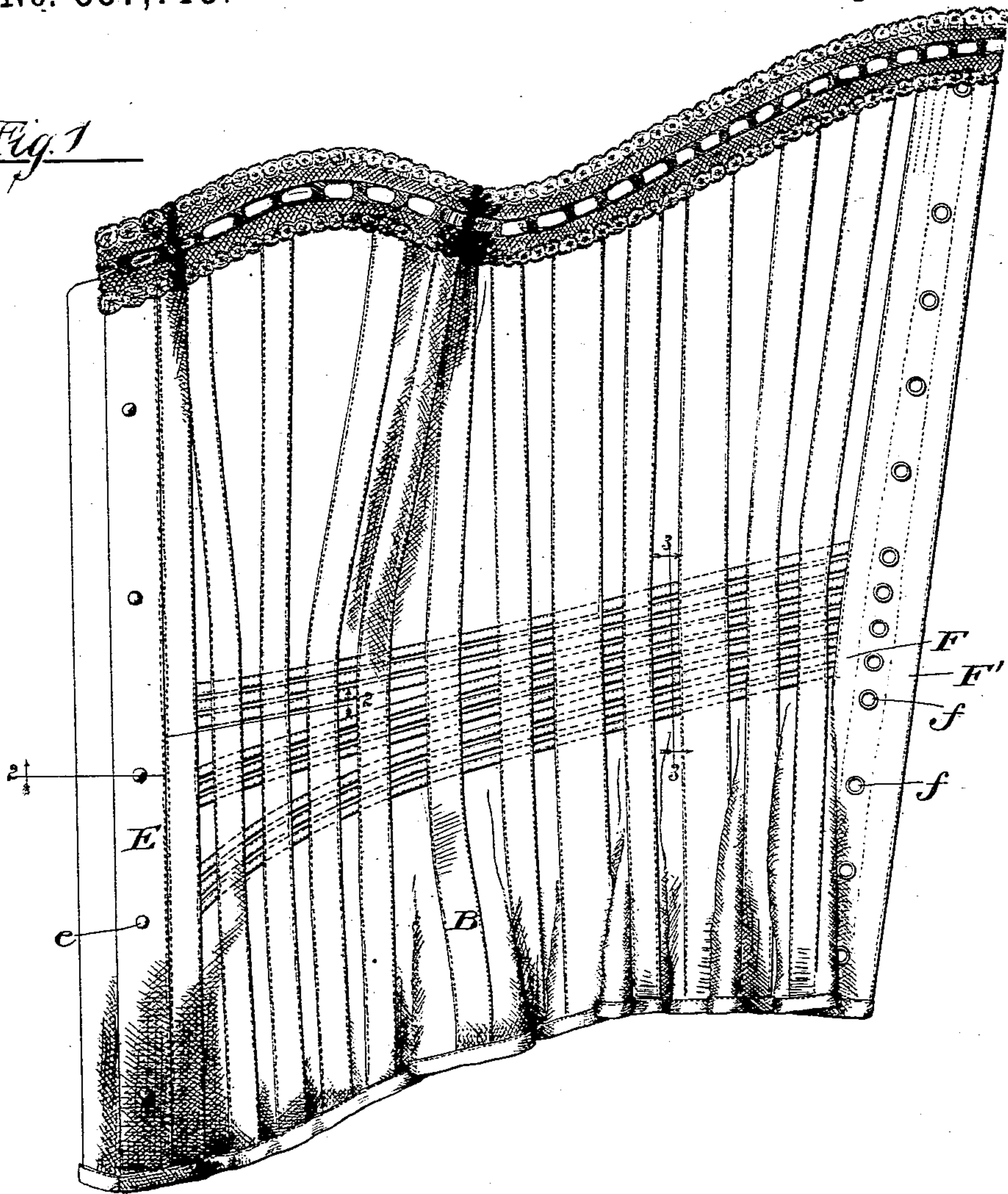


Fig. 2

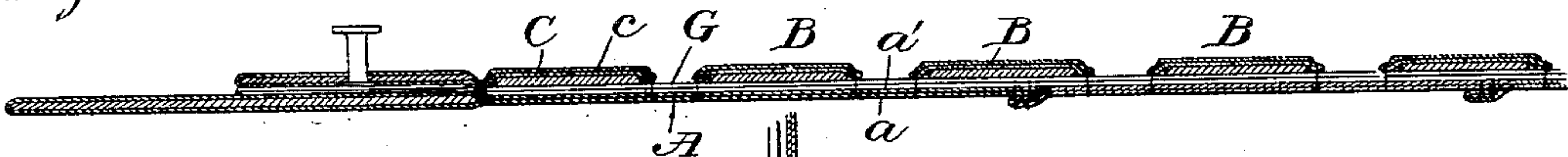


Fig. 4

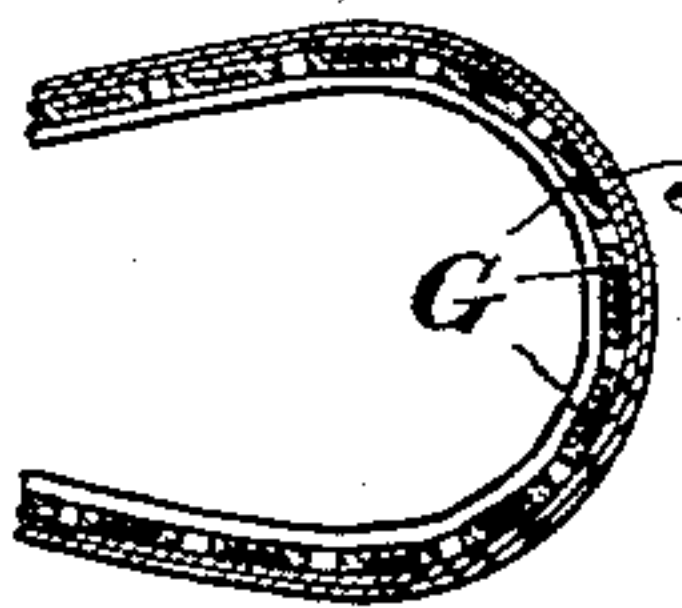


Fig. 3

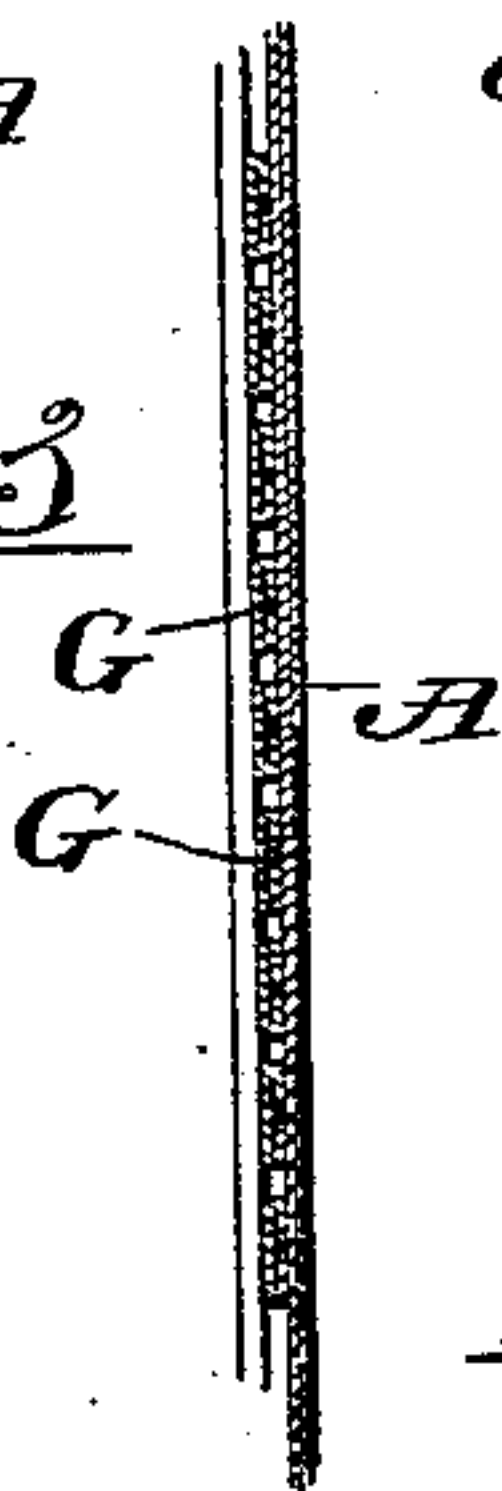
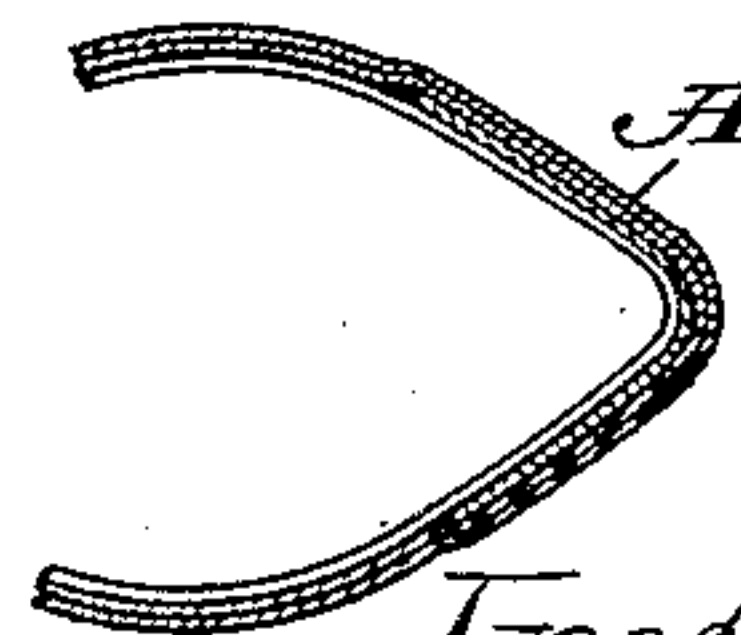


Fig. 5



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# UNITED STATES PATENT OFFICE.

JAMES STONE, OF AURORA, ILLINOIS.

## CORSET.

SPECIFICATION forming part of Letters Patent No. 557,713, dated April 7, 1896.

Application filed January 27, 1896. Serial No. 576,988. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES STONE, of Aurora, in the county of Kane and State of Illinois, have invented certain new and useful  
5 Improvements in Corsets; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form  
10 a part of this specification.

This invention relates to an improvement in the construction of corsets, having reference more especially to means for giving greater strength to that part of the corset  
15 which covers the waist region of the wearer.

The invention consists in the matters hereinafter described, and pointed out in the appended claims.

A corset embodying my invention is provided at or near its waist portion with a girdle or circumferential band consisting of a plurality of narrow strips or subgirdles of fabric located at distances apart less than the width of the strips and equidistant, or practically so, from each other at the side portions  
25 of the corset or in the neighborhood of the hips. Said strips may be divergent at the front and rear of the corset, if such divergence be desired, to give a lighter and more  
30 ornamental appearance to the girdle.

The strips forming the girdle each consist of one or more layers or thicknesses of fabric, which are sewed to the body of the corset or to the cloth forming the body of the corset,  
35 so as to extend beneath the vertical pockets which contain the stiffening-strips or bones. When the strips are of cloth cut from a large piece, their edges will be folded beneath the strips and the latter secured by lines of stitching passing through the folded edges of the  
40 strips.

The girdle arranged as described performs the function of a band or belt to give greater strength circumferentially at the waist portion of the corset, so as to prevent an undue stretching of the material composing the corset or possible tearing of the same at the waist.  
45 The strips constituting the girdle perform the additional and important function of strengthening the stiffening-strips or bones without making the corset unduly heavy or clumsy and at the same time of equalizing

the bending of said strips or bones, so as to lessen the liability of their being bent at a sharp angle at the points where the greatest strain comes upon them, this usually being  
55 above the hip-bones or part of the hips having the most abrupt enlargement. This effect of the horizontal strips in equalizing the bending of the bones will be better understood from consideration of the fact that each strip, being firmly attached by stitching to the cloth body and the cloth which forms the bone-pockets, in itself affords some resistance  
60 to the bending of that part of the bone embraced within its width or between its side edges, (especially if the fabric strip be of thick material or folded cloth,) and it follows that when a number of the said strips are securely attached to the corset side by side and  
70 close together, if pressure be applied to the bones, tending to bend the same, the flexure will take place mainly at points between the strips and to practically the same extent between each pair of adjacent strips. The result is that the bones when bent will assume a curve approximating that of a circle of considerable radius. The difference in action  
75 between a corset thus made and one provided with a single wide strip or girdle may be understood if it be considered that such wide strip or girdle will give little or no increase of stiffness to the bones and will not affect in any way the natural tendency of the bones to bend at a relatively sharp angle at the points  
80 where the greatest bending strain comes or where the bones happen to be weakest or most yielding.

The invention may be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a side view of one side or half of the corset, showing my improvement applied thereto. Fig. 2 is an enlarged detail horizontal section taken on line 2 2 of Fig. 1.  
95 Fig. 3 is a vertical transverse section taken on line 3 3 of Fig. 1. Fig. 4 is a view illustrative of the bending of a corset having girdles constructed in accordance with my invention. Fig. 5 is a similar view showing the manner  
100 of bending where a single or wide girdle is employed.

As shown in said drawings, A indicates the cloth composing the main or body portion of



the corset, the same in this instance being shown as made double and of inner and outer layers *a a'*.

B B indicate vertical bone-pockets formed by means of strips of cloth *c*, which are folded at their edges and sewed to the outer surface of the cloth body A. Within said bone-pockets are located the usual bones or stiffening-strips C, as shown in Fig. 2.

E indicates the steel or stiffening-strip at the front of the corset provided with the usual fastening-studs *e*, and F F' the two stiffening-strips at the rear of the corset between which are located the lacing-eyelets *f f*.

G G indicate the circumferential strips which form the girdle and to which the invention more particularly relates. Said strips extend along the outer face of the body fabric A between the same and the bone-pockets B B, which latter extend over the said strips or girdles G from top to bottom of the corset. The strips are secured by stitching to the body of the corset, preferably by means of marginal lines of stitching extending both through the girdles and the body of the corset. The said strips at the point where additional strength or resistance to bending is especially needed are located at close intervals or at a distance apart much less than the width of the strips themselves, which latter are all of the same width or substantially so. At the front of the corset the strips are shown as arranged to diverge in the manner of the sticks of a fan, preferably being divided into groups, of which the strips forming each group are parallel with each other. The same divergent arrangement at the rear part of the corset may be employed, if desired.

As shown in the drawings, nine strips are used, which at the front of the corset are divided into three groups of three each, which groups are divergent, the lower one curving downwardly and the upper one upwardly, while the intermediate one takes an intermediate course.

In the particular construction illustrated each strip consists in a narrow piece of cloth, the margins of which are folded inwardly, so as to form folded edges through which the stitching is inserted for attaching the strips to the corset. This makes each strip practically of double thickness and increases the rigidity or lateral stiffness of the same. The strips may, however, consist of more than one layer of fabric, if found necessary or desirable.

The strips are placed so close together that any extreme bending of the bones or stiffening will result in the edges of the strips, which are secured to the outer surface of the body, being drawn or forced into contact with each other, so that the strips will thus present considerable resistance to an extreme or dangerous flexure of the bones at any one point. Moreover, the presence of the several narrow strips give such additional thickness to the part of the corset at which they are located as to greatly strengthen the bones and to lessen

the capacity of the same to bend. Moreover, each separate strip being strongly secured to the bone-pockets and therefore being closely and strongly held against the bones by the stitching which unites the parts, it will tend to prevent flexure or lessen the flexibility of the short section of bone comprised between its edges, while the section of bone left between each pair of adjacent strips will be so short as to prevent any considerable bending or flexure in such part between any two of the strips. It follows from this construction that if pressure be applied to the bones above and below the girdle in a way to force them outwardly or to bring their free ends together the uniformly arranged or spaced strips will tend to produce a uniform or equal flexure of the bones and will hold them in the form of an arc of considerable radius and thus prevent extreme flexure at any one point, which might either immediately, or ultimately in continuous wear, fracture the bone or exceed its limit of elasticity. This action of the strips in preventing excessive flexure may be more readily understood by comparison of Figs. 4 and 5.

Fig. 4 shows the effect of bending the side portion of the corset by pressure applied to the outer ends of the bones tending to force their free ends outwardly and together, from which it will be seen that by reason of the presence of the narrow strips placed close together the flexure is distributed with practical uniformity in the spaces between the several strips, thereby preventing such extreme flexure at any one point as would break or permanently bend them.

Fig. 5 shows the effect which is likely to occur in similarly bending bones of the side portion of a corset having a single wide girdle in place of a number of narrow strips. In this figure it will be seen that with the wide girdle flexure will take place largely at one point, so as to make an extreme or acute bend at such point, such wide girdle obviously affording no more resistance to bending than is due to the presence of the thickness of the cloth composing it and leaving the bones free to bend to the greatest extent at the point where they happen to be weakest or where the bending pressure happens to localize the bend.

From these examples it will be seen that a single broad girdle would have no special advantage except that of preventing the circumferential stretching of the corset, while the numerous narrow strips have the effect of greatly increasing the strength of and giving uniform elasticity to the corset. Moreover, the slight additional thickness given to the corset by the interposition of the narrow girdle-strips between the cloth of the corset and the bones or stiffening thereof serves to give additional resistance to bending, for the reason that the cloth body A requires to be stretched considerably before any considerable bending can take place, as will be clear



from comparison of Figs. 3 and 4, while any extreme bending will tend to crowd the edges of the strips together, assuming that the bones should give or slide endwise in the bone-

5 pockets during such bending.

I prefer to make the strips of folded cloth with both edges folded, and that the sewing of the strips to the corset shall be by means of lines of stitching adjacent to such folded  
10 edges, this construction in the strips giving an appreciably greater amount of stiffness or rigidity to the strips and to the part of the corset to which they are applied than is given by the use of strips made of a single thick-  
15 ness of fabric unless relatively thick fabric be used.

An important advantage gained in the manufacture of the corset by the use of many narrow strips arranged as described is that such  
20 strips may be easily and readily bent side-wise or edgewise in applying them to the corset-body, so that they will lie smoothly thereon, even though bent or curved to a considerable extent, as in the case of the lowermost  
25 set of strips shown in Fig. 1 of the drawings.

As hereinbefore mentioned, it is preferred to divide the several strips into divergent groups at the front of the corset, this construction being employed because means for  
30 resisting extreme flexure of the bones is not so much needed at this point, and the corset has a more ornamental or pleasing appearance by the use of such divergent arrangement. At the same time the narrow strips so  
35 arranged at the front portion of the corset are not useless, because they also to a considerable degree increase the strength and durability of the stiffening at this point, al-

though by reason of the spreading apart of the groups they leave the stiffening-strips 40 more free to bend than at the sides of the corset, where they are spaced uniformly or practically so.

I claim as my invention—

1. The combination with the cloth forming 45 the body of the corset, bone-pockets formed by strips applied to the outer surface of the said cloth and stiffening-strips or bones inserted therein, of a wide girdle consisting of a plurality of narrow strips applied circum- 50 ferentially at the waist region of the corset between the said cloth composing the body of the corset and the bones, at a distance apart less than the width of the strips, each of said strips consisting of fabric stitched to 55 the cloth body, substantially as described.

2. The combination with the cloth forming the body of the corset, bone-pockets formed of strips applied to the outer surface of the said cloth and stiffening-strips or bones in- 60 serted therein, of a plurality of narrow strips applied circumferentially at the waist region of the corset between the said cloth composing the body of the corset and the bones, each of said strips consisting of cloth folded at its 65 edges and secured to the cloth body by means of lines of stitching passing through its folded edges, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence 70 of two witnesses.

JAMES STONE.

Witnesses:

C. CLARENCE POOLE,  
WILLIAM S. HALL.