No. 679,977. Patented Aug. 6, 1901.

E. J. MARTIN.

CORSET STEEL.

(Application filed Nov. 19, 1900.)

(No Model.)

Fig. 1.

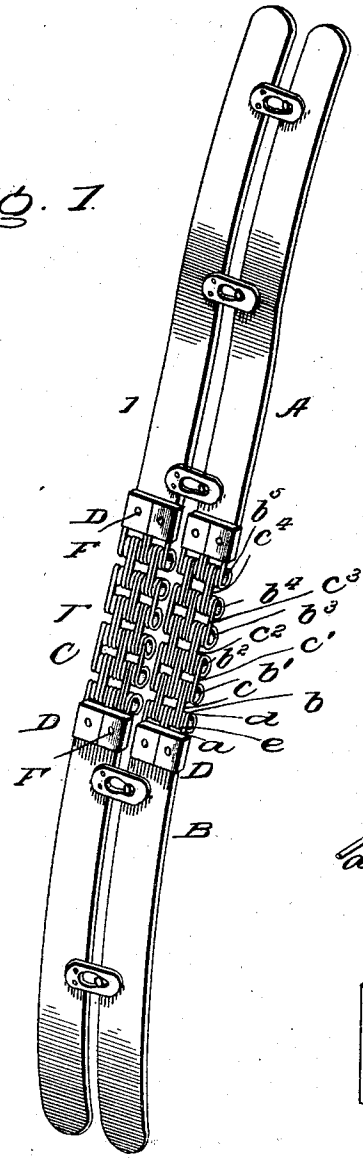


Fig. 2.

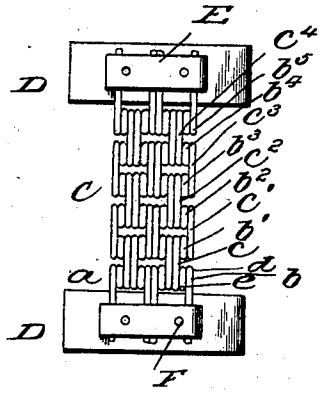


Fig. 3.

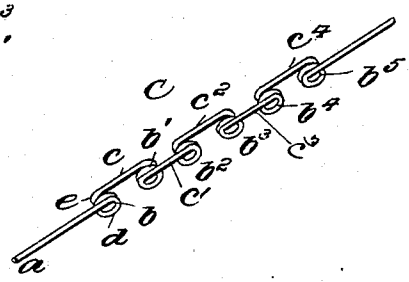
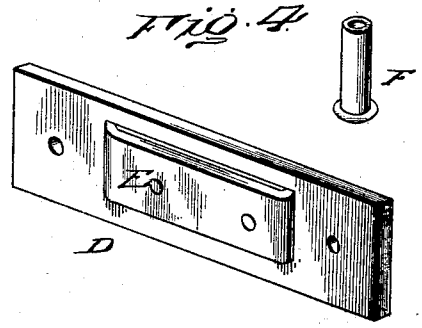


Fig. 4.



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UNITED STATES PATENT OFFICE.

ERNEST J. MARTIN, OF FALL RIVER, MASSACHUSETTS.

CORSET-STEEL.

SPECIFICATION forming part of Letters Patent No. 679,977, dated August 6, 1901.

Application filed November 19, 1900. Serial No. 36,956. (No model.)

To all whom it may concern:

Be it known that I, ERNEST J. MARTIN, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Corset-Steels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in corset steels or stays, and has particular reference to the steels for supporting and holding the corset in place and to the form of the wearer.

The object of the invention is to provide means for preventing the breaking of the steels when the wearer bends or twists the body.

The invention consists, essentially, of a corset stay or steel consisting of two pieces—a top and a bottom—joined at the waist-line by a series of separate and independent wires arranged side by side and provided with a number of separate and distinct spiral coils and the means for connecting said steels and wires to hold them together.

The invention further consists in the novel construction and arrangement of the several parts of the device, as hereinafter described, illustrated in the drawings, and more particularly pointed out in the claim hereunto appended.

Referring to the drawings, Figure 1 represents a form of my improved corset stay or steel having inserted therein at the waist-line a series of spring-steel wires provided with separate and independent spiral coils therein. Fig. 2 is a detail showing the spiral coils or springs and means for fastening them to the adjacent ends of the steels or stays. Fig. 3 shows details of one of the wires, showing the connecting spiral coils or springs, showing its construction thereof. Fig. 4 shows details of the brackets and eyelet for attaching said spiral coils or springs to the steels or stays.

In the drawings, 1 indicates a corset steel or stay consisting of three parts—the upper part A, which extends from about the waist-line up to the upper part of the corset, the part B, which extends from about the waist-line to the bottom part of the corset, and the part C, consisting of a series of wire spirals or coiled-springs connecting the parts A and B of the steels or stays at the waist-line. The part C, which connects the two parts A and B at the waist-line of the corset, may be composed of a series of independent coiled springs joined together in any suitable manner or may be composed of separate wires having therein coils arranged in such a manner as to afford a pliable and yielding connection.

In the construction of my invention instead of using a series of independent coiled springs I prefer to use a series of separate and independent wires provided with separate and independent spiral coils therein constructed and arranged substantially as shown.

The detail construction of the part C is as follows: I take a spring-wire a of suitable length and form therein at proper points one or more spiral coils, each spiral having preferably two turns d and e of wire. Having formed the first spiral b, I then make in the line of this wire a bridge c in length a little over twice the diameter of the spiral coil. At the end of this bridge c I form another spiral b' of the same number of turns and diameter as the first spiral b. I then form another bridge c', as shown, of the same length as the first bridge, and at the end thereof form a third spiral b^2, consisting of the same number of windings as the first. I then pass a third bridge c^2 about equal in length to the first and second bridges and there form a fourth spiral b^3, having the same number of turns as the first spiral coil. I then pass a bridge c^3, forming a fifth spiral coil b^4, similar to the fourth coil, and then another bridge c^4 the length of the preceding bridges, and then form a sixth spiral coil b^5, leaving the end of the wire projecting, as shown in Fig. 3, in a line with the opposite end thereof. In this construction it will be noticed that the bridge when it leaves the spiral coil is at the opposite side of said spiral coil at which each preceding bridge enters to form said coil, as shown. By this arrangement the wires containing the series of spiral coils is

made much stiffer, and when a number of these are placed side by side form a very strong yet pliable joint. In constructing this connection C, I have turned in each wire a series of six coils, because in practice I have found that this number produced the best results. The part C is made up usually of from four to six separate and individual wires having these spiral coils therein placed side by side and held together in such a manner that they represent in appearance a series of individual parallel coil-springs.

D D are brackets consisting of thin rectangular pieces of metal provided on their inner sides with raised keepers E, struck up from the body of the bracket, as shown, beneath which are fitted and held the ends of the series of individual and independent wires *a*, as shown in Fig. 2. When these wires have been arranged side by side and attached to the brackets D D, as shown, said brackets are fitted to and upon the adjacent ends of said steels and turn over thereon, so as to embrace said ends, and are firmly secured thereto by the rivets F, as shown in Fig. 1. When so constructed, the corset-steel may be bent double at the waist-line, if so desired, without in any manner breaking it or otherwise impairing its usefulness, as is apparent. I am aware that corset steels or stays of this class have been heretofore used; but I am not aware that there has ever been made or used a two-part corset steel or stay connected by a series of separate and independent wires having therein separate and independent spiral coils such as described by me, and I therefore do not claim, broadly, connecting the adjacent ends of corset-steels by means of springs; but

What I do claim, and desire to secure by Letters Patent, is—

The combination in a corset steel or stay, of the end sections of solid material, with a series of separate and independent spring-wires having formed therein a series of six separate and independent spiral coils, each coil consisting of two turns of the wire, a bracket, a keeper thereon struck up from the body of the bracket beneath which the free ends of said wires when assembled are held independent of the means for securing said brackets to the steels, the said bracket being constructed to be folded over and upon the adjacent ends of the steels or stays, and means for holding said brackets, when so folded, to said steels, as set forth.

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

ERNEST J. MARTIN.

Witnesses:
S. W. ASHTON,
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