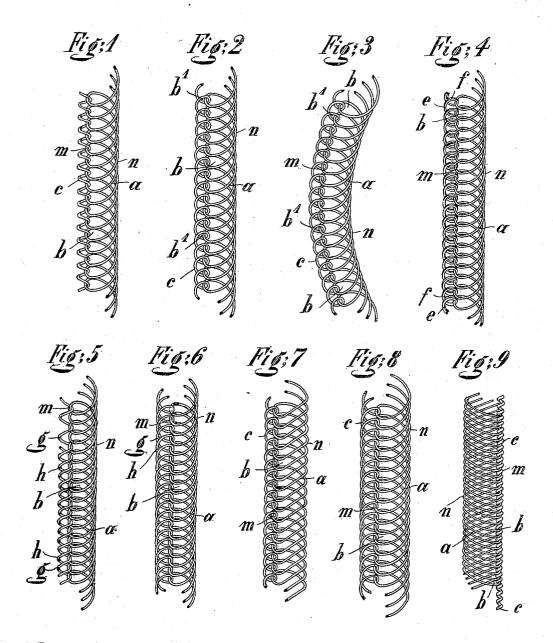
## H. TORLEY. CORSET STIFFENER.

(Application filed May 25, 1901.)

(No Model.)



Witnesses;

Inventor; Himrh Taley

## UNITED STATES PATENT OFFICE.

HEINRICH TORLEY, OF OBER-KAUFUNGEN, NEAR CASSEL, GERMANY, ASSIGNOR TO BERTHA SCHECK, OF OBER-KAUFUNGEN, NEAR CASSEL, GERMANY.

## CORSET-STIFFENER.

SPECIFICATION forming part of Letters Patent No. 709,565, dated September 23, 1902.

Application filed May 25, 1901. Serial No. 61,891. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH TORLEY, a citizen of the German Empire, residing at Ober-Kaufungen, near Cassel, in the Province of Hesse-Nassau, Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Springs for Corset-Stiffeners and other Purposes; and I do hereby 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.

This invention relates to spirally-wound and flattened springs for corset-stiffeners and 15 other uses; and it consists in the construction and combination of parts hereinafter set

forth and claimed.

In the accompanying drawings, Figure 1 represents a side elevation of my spirally-20 coiled spring before flattening. Fig. 2 represents the same after flattening. Fig. 3 represents the same after bending. Fig. 4 represents the same in the position shown in Fig. 2, but with two parallel wires for bind-25 ing coils. Fig. 5 corresponds to Fig. 1, with two binding-wires arranged to cross each other. Fig. 6 corresponds to Fig. 2, but with two binding-wires, as in Fig. 5. Fig. 7 represents a spring similar to that shown in Fig. 30 6, but with a slightly-different appearance, owing to the wires having been wound on a semicylindrical mandrel instead of a cylindrical one. Fig. 8 represents another modification of form, owing to winding the wires 35 on a wedge-shaped mandrel; and Fig. 9 represents another modification, the wires of which have been wound on a semicylindrical mandrel, such as that used in making the spring shown in Fig. 7, the coils being, how-40 ever, closer and the spring more compact.

My improved spring consists of a wire coil a of three parallel wires bound together by a binding-wire c, passing in a zigzag line through each of their loops b on the side m 45 of the spring, as shown in Fig. 1. This side m has an undulating border, as shown in Fig. 1, the other side n of the said spring being

smooth and even. The spring is then pressed flat, giving it the form shown in Fig. 2. The flattening of the wire c on itself forms the so small loops b', interlocking with loop b. The spring may then be bent, if desired, into the form shown in Fig. 3, but will be more often used as a corset-stiffener in the straight form illustrated by Figs. 2 and 4, bending 55 into the form shown in Fig. 3 only by the strain of the garment or the flexure of the wearer's body.

In Fig. 4 two parallel binding-wires  $e\,f$  are wound through the loops b instead of the 60

single wire c aforesaid.

In Fig. 5 two binding-wires g h are wound through the loops b, alternatingly crossing each other between them. Fig. 6 illustrates this same construction of Fig. 5 after flatten- 65 ing the spring, which forms the binding-wires into loops where they interlock with the coils a.

Figs. 7 and 9 illustrate forms of the spring corresponding to Figs. 2 and 4, but formed 70

on a semicylindrical mandrel.

Fig. 8 represents a form corresponding to Figs. 2, 4, and 7, but formed on a wedge-shaped mandrel.

I claim—

1. A spring for corset-stiffeners and other purposes consisting of a series of parallel spiral spring-wires a wound to leave one edge of the spring undulating and open while the other is straight or closed, and a binding 80 wire or wires passed through the loops of said coils on the open or undulating side, the whole being flattened substantially as set forth.

2. A flat corset-stiffener consisting of a series of parallel spiral spring-wires presenting a closed straight edge and an open undulating edge and a binding-wire forming loops which interlock with the loops of the said coils at the open or undulating edge of the 90 spring substantially as set forth.

3. A flat corset-stiffener consisting of a series of parallel spiral spring-wires presenting a closed straight edge and an open undulat-

ing edge and a pair of binding-wires forming | loops which interlock with the loops of the said coils substantially as set forth.

4. A flat corset-stiffener consisting of a se-ries of parallel spiral spring-wires presenting a closed straight edge and an open undulat-ing edge and a pair of binding-wires crossing each other and forming loops which interlock

alternately with the loops of the said coils substantially as set forth.

In testimony whereof I have affixed my sig-

nature in presence of two witnesses.

HEINRICH TORLEY.

Witnesses:

OTTO KÖNIG, J. A. RITTERSHAUS.