G. S. BRACHER.

CORSETS.

No. 178,719. Patented June 13, 1876.

Fig. 3

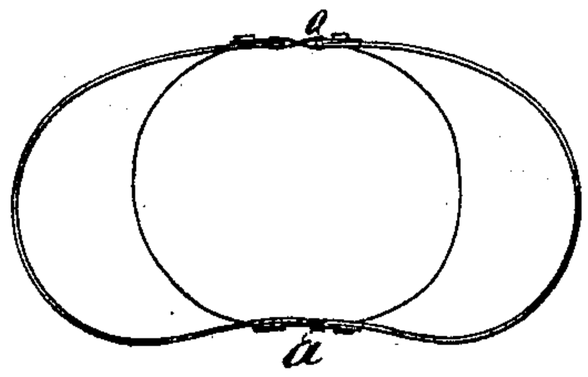


Fig. 1

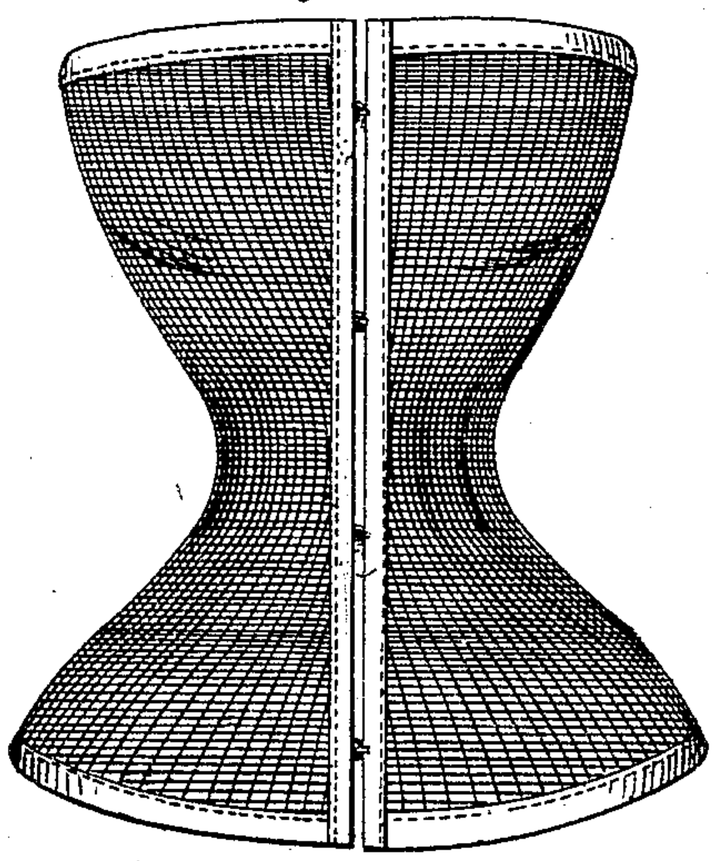


Fig. 2

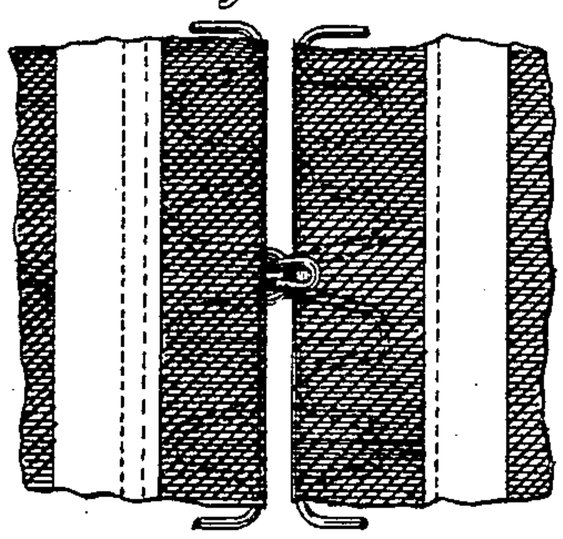
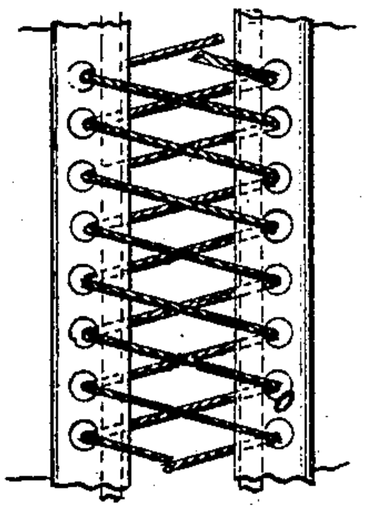


Fig. 4



Witnesses:
H. Ryan
Christian G. Moritz

Geo. S. Bracher,
by attys,
Clayton Bros.

UNITED STATES PATENT OFFICE.

GEORGE S. BRACHER, OF CHATHAM, NEW JERSEY.

IMPROVEMENT IN CORSETS.

Specification forming part of Letters Patent No. **178,719**, dated June 13, 1876; application filed October 28, 1875.

To all whom it may concern:

Be it known that I, GEORGE S. BRACHER, of Chatham, Morris county, in the State of New Jersey, have invented certain new and useful Improvements in Corsets; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

In the drawings, Figure 1 is an elevation, and Fig. 2 is a plan view, of my improved corset. Fig. 3 shows a preferred mode of clasping the front. Fig. 4 shows a common mode of lacing the back.

The object of my invention is, primarily, to produce a corset which shall be more elastic and flexible laterally, and, at the same time, stiffer longitudinally, as well as lighter and cheaper, than any heretofore produced; and to this end it consists, first, in a process of manufacturing a composite fabric of tempered wire and fibrous threads, wherein the weaving precedes the sizing, instead of succeeding it, as heretofore; second, in a corset formed of a woven fabric with tempered or spring wires running through the same longitudinally in the manufactured article; third, in the process of shaping or forming said corset by the agency of male and female dies of polished metal and heat applied above and below.

Heretofore, when fabrics have been woven with woof or warp, either wholly or partly composed of wire, the stiffening with sizing or gum has preceded the weaving. This method greatly enhances the difficulty of manipulation, as the threads must necessarily be treated more or less separately, and in passing through the loom the sized surface is more or less abraded and injured. Sized or stiffened threads are also more difficult of manipulation, either before or after being put upon the loom.

All these difficulties of manipulation are obviated by my process, which consists in passing the woven fabric of fibrous threads and wire, as it leaves the loom, through a vat of sizing, and then between elastic squeezing or wringing rollers, whereby the surplus sizing is squeezed out. This reduces the process of sizing to a single manipulation, involving no extra trouble or time.

Corsets, when heretofore constructed of fabric, including wire, have been constructed of ordinary gauze of untempered wire, the wires being arranged both longitudinally and laterally. The effect of this structure is to decrease the general flexibility and elasticity of the manufactured article, and to add to its weight and cost without any compensating beneficial result, because the stiffness and supporting power of corsets are required to be in vertical planes entirely, and it is desirable that they should possess the greatest possible degree of flexibility in lateral directions. I, therefore, insert tempered spring-wires in the corset fabric, and so arrange them that they shall be longitudinal in the corset when completed, and I thereby secure a stiffening and supporting power unattainable in a corset provided with untempered wires, or wires arranged in any except vertical planes.

Heretofore, when corsets have been formed in dies, such dies have been elastic or flexible on one side or the other, and only capable of shaping a plastic tissue like felt. Thus, as I am aware, felt corsets have been shaped on a hot metal die on one side, and an elastic india-rubber die on the other side, the required compression being obtained by a hydraulic press; but this proceeding does not, and cannot, accomplish the result attained by my invention—that is to say, my fabric containing tempered spring-wire cannot be shaped in the press named, nor is the felt corset, in any way, an equivalent for or possessed of the advantages of my invention, which consists in shaping between two metallic dies, both heated, a suitable piece of damp, sized, or stiffened fabric, having tempered wires running through it in one direction, whereby said fabric is shaped, the sizing hardened to hold the tempered wires in place, and surface finished and glossed without subsequent ironing or burnishing.

It is to be understood, in the above description, that the pair of dies represent one half-corset, and that the entire corset is composed of two half-corsets, the edges whereof are turned over, bound, and provided with lac-

ings for the back and clasps for the front, as usual.

Having described my invention, what I claim as new is—

1. In the manufacture of the corset fabric described, the process of weaving and then sizing the same as successive operations, in the order named.

2. A corset composed of woven fabric, provided with tempered spring-wires, arranged longitudinally in the manufactured article, as and for the purpose set forth.

3. The process of shaping and surfacing a corset composed of a sheet of sized fabric, woven of fibrous threads and spring-wires, (previously dampened,) by pressure between hot dies of polished metal, as set forth.

G. S. BRACHER.

Witnesses:
JAMES G. DE WITT,
J. C. CLAYTON.