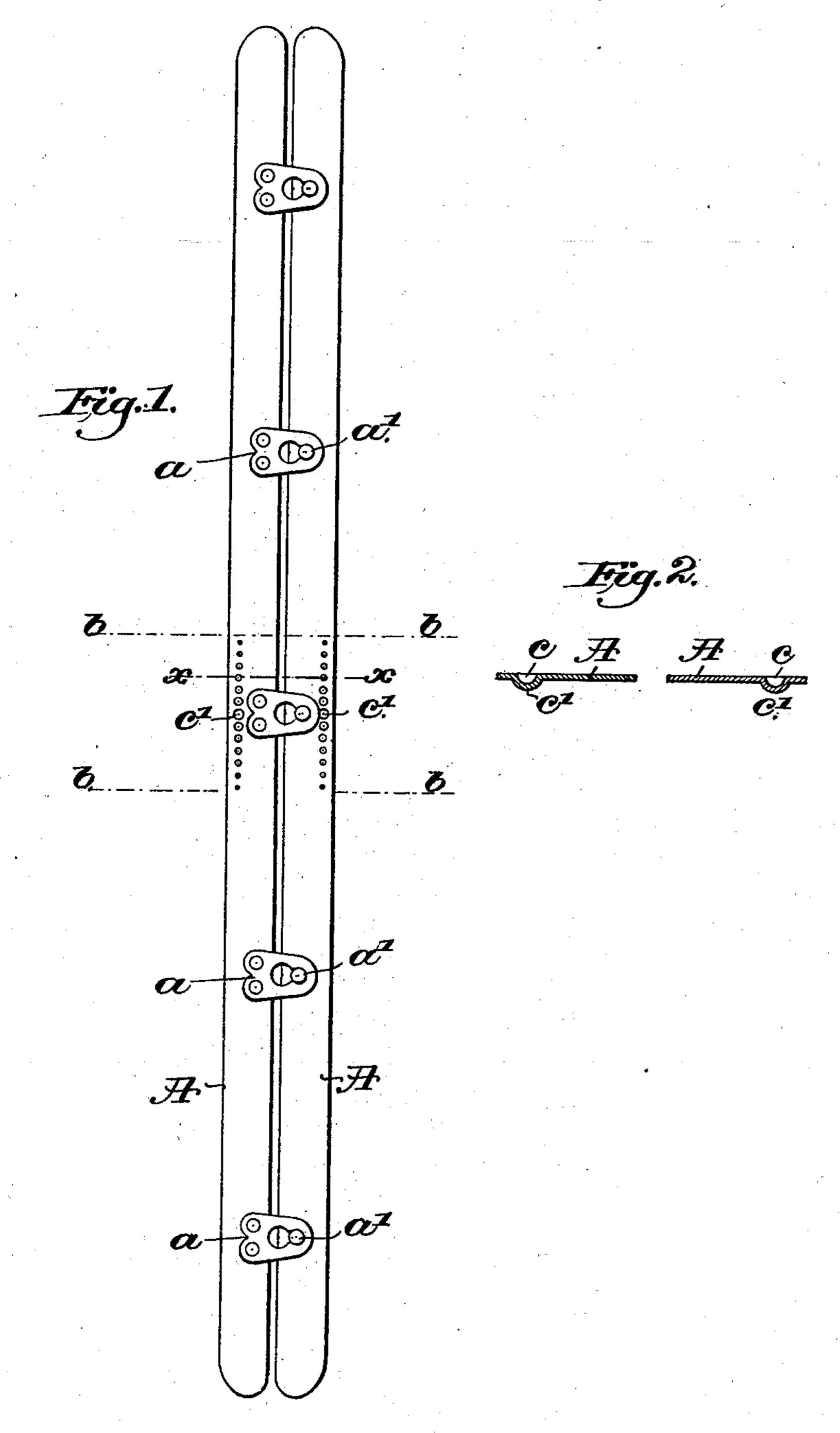
(No Model.)

## M. W. HENIUS.

## CORSET STAY.

No. 503,909.

Patented Aug. 22, 1893.



Edward Fr Allen Louis Medowell

Max W. Herrins. By Crosby Abregory lattings.

## United States Patent Office.

MAX WOOLF HENIUS, OF BROOKLYN, NEW YORK, ASSIGNOR TO DAVID H. FANNING, OF WORCESTER, MASSACHUSETTS.

## CORSET-STAY.

SPECIFICATION forming part of Letters Patent No. 503,909, dated August 22, 1893.

Application filed March 25, 1893. Serial No. 467,628. (No model.)

To all whom it may concern:

Be it known that I, MAX WOOLF HENIUS, of Brooklyn, county of Kings, State of New York, have invented an Improvement in Stays, 5 of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings rep-

resenting like parts.

The fronts of corsets, waists, dresses, &c., ro commonly contain "steels" provided with eyeplates and pins or studs which are caught together to keep them in place, said steels being designated by the term "stays." These stays in use are subjected to great strain, and 15 are bent, more or less, and frequently broken at the waist-line of the corset or other garment into which they are incorporated, the frequency of breaking depending upon the shape or occupation of the person wearing 20 the same, and frequently the breaking of a stay causes injury to the person. I have sought to so improve this class of stays that | they will not break at the waist-line, or point of greatest strain.

25 My invention consists in a stay having its point or points of greatest strain reinforced by means of a series of disconnected and independent indentations or pits formed within the outline edges of the stay, as I will pro-

30 ceed to describe and finally claim.

Figure 1 in front elevation shows a pair of stays embodying my invention, and Fig. 2, a section in the line x, but much enlarged.

The stays A, A, their eye-plates a, and 35 pins or studs a', are and may be all as usual. The greatest strain upon the stay is between the lines b, b, and it is at this point that the stay needs reinforcing or strengthening. The stay between the lines b, b, is subjected at 40 its rear side to the action of a suitable blunt tool, which, while the stay rests on a suitable die, makes in the rear side of the stay a series of pits c, which at the outer or face side of the stay show as a series of elevations c'. For 45 the best results these pits or indentations will preferably be made more shallow at the ends than at the central portions of the series of pits. The stay may be pitted along any part of its body which it may be desirous to rein-50 force or stiffen.

In my first attempts to stiffen or reinforce stays to obviate breakage I thought that a rib would be the better and more practicable form, but in practice I found that the rather hard tempered material of the stay would not 55 take a long bend, such as required to form a rib, without cracking, but I did find that I could successfully make in such material a series of substantially circular pits at a short distance apart, and I found that the series of 60 pits gave the requisite stiffness, and that the stiffness due to the pits was better suited to the requirements of the stay than would be a long rib. I, therefore, do not claim a stay stiffened by a rib-like indentation, but only 65 when the indentations are made in series as separate short pits formed within the outline

edges of the stay.

Stays have been reinforced at the waist line by means of continuous transverse crimps, 7° corrugations or creases, but in order to effect any considerable reinforcement by this means, it is necessary to make the creases deep and large, and because of this fact and the other fact that the creases project from 75 both sides of the plane of the stay the said stay is rendered unduly bulky and protuberant. By means of my separated indentations, the stay may be readily reinforced, no matter how hard its metal may be, without dan- 80 ger of breaking it, and moreover these indentations may be very small without impairing their efficiency. These pits may be variously distributed on the stay and be more or less closely arranged.

Having described my invention, what I claim as new, and desire to secure by Letters

Patent, is—

A stay having its point or points of greatest strain reinforced by means of a series of dis- 90 connected and independent indentations or pits formed within the outline edges of the stay, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 95

two subscribing witnesses. MAX WOOLF HENIUS.

J. P. PUELS.

Witnesses: PETER C. PUELS,