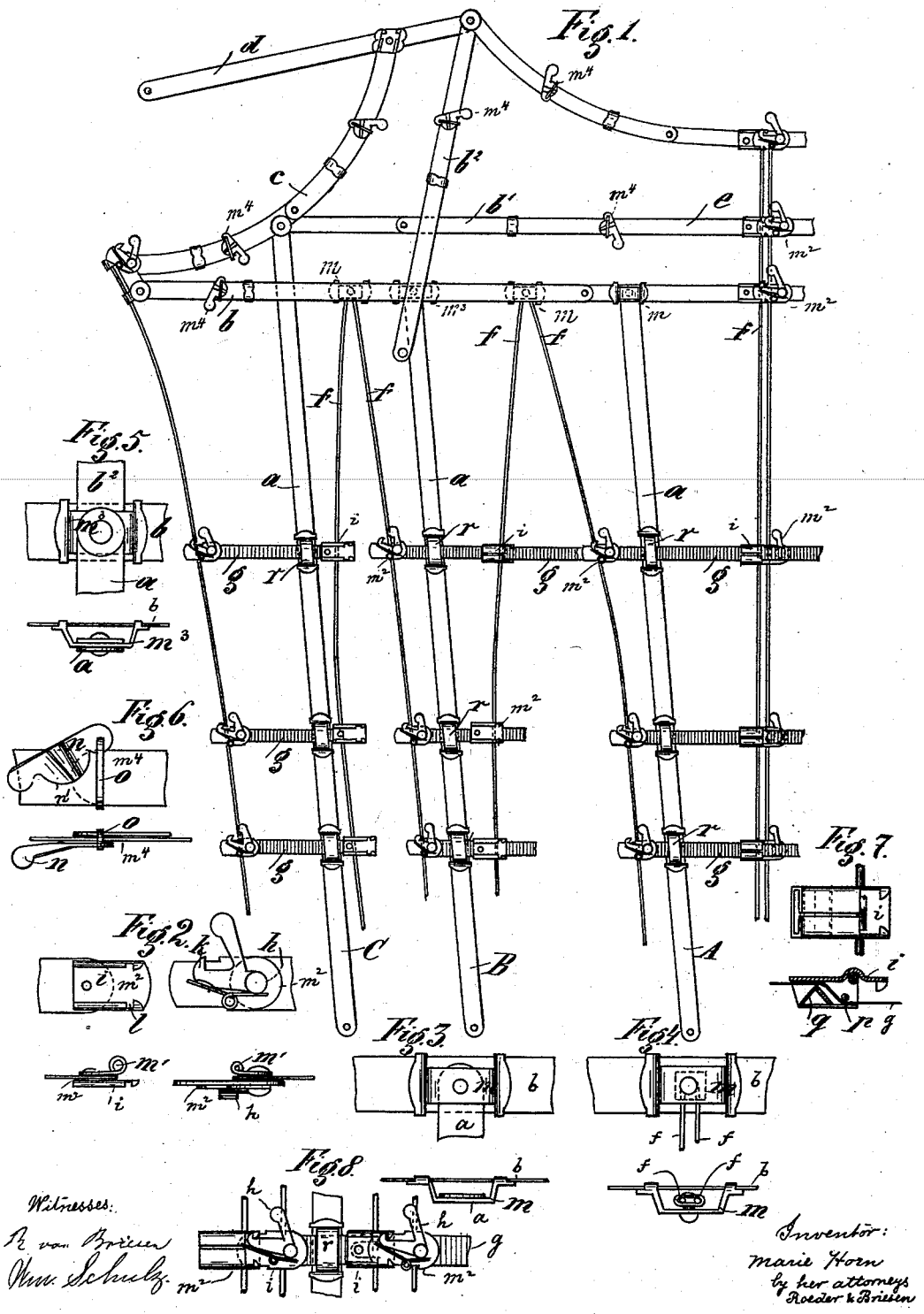
(No Model.)

M. HORN.

GARMENT MEASURING AND DRAFTING APPARATUS.

No. 525,019. Patented Aug. 28, 1894.



UNITED STATES PATENT OFFICE.

MARIE HORN, OF BERLIN, GERMANY.

GARMENT MEASURING AND DRAFTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 525,019, dated August 28, 1894.

Application filed October 8, 1892. Serial No. 448,189. (No model.) Patented in Germany February 10, 1889, No. 49,257, and September 18, 1892, No. 71,366.

To all whom it may concern:

Be it known that I, MARIE HORN, a subject of the King of Prussia, residing at Berlin, in the Kingdom of Prussia, German Empire, have invented new and useful Improvements in Garment Measuring and Drafting Apparatus, (for which I have obtained patents in Germany, No. 49,257, dated February 10, 1889, and No. 71,366, dated September 18, 1892,) of which the following is a specification.

This invention relates to an improved garment measuring and drafting apparatus, and comprises a skeleton frame, a set of flexible adjustable cross bands and a set of clasps and slides for attaching the various parts together.

In the accompanying drawings: Figure 1 represents my improved garment measuring and drafting apparatus, constructed for measuring the front of a garment; Fig. 2 a front and end view of clasp m^2. Figs. 3 and 4 are front views and end views of slide m; Fig. 5 a front and end view of slide m^3; Fig. 6 a front and end view of clasp m^4; Fig. 7 a front and end view of a modification of socket i, and Fig. 8 a front view of slide r, with adjoining clamps.

The letters A, B and C, represent three longitudinal bars connected on top with the rods a. These rods are in turn connected to cross bars b, b', and an inclined bar b^2, placed below the vaulting of the chest, while the bars b, b', b^2, connect with the bars c, d, and e, for the arm pit, shoulder and neck. The system thus far described forms the solid skeleton of the fore part. The other upright stays of the apparatus are formed of elastic wires f, which when adjusting the apparatus to the body are so placed as to coincide with the seam lines.

The cross stays consist of elastic bands g, of any suitable material which may be provided with graduated measuring indications and slides.

The cross bars b, b', contiguous to the chest vaulting, are connected to the stays f, by the connecting mechanism shown in Fig. 2. This mechanism consists of clasps m^2, provided with hooks h, and sockets i. The clasps m^2, carry on their backs the eyes m' embracing the wires f, so that the clasps are adjustable on the wires. To the cross bar b, are adjustably attached some of the longitudinal rods a, and the elastic wires f. The bar b, is provided with adjustable slides m, to which are riveted in a rotatable manner the wires f, f, and the longitudinal bars a (see Figs. 3 and 4). The rod a, of the chest bar B, is connected in a movable manner by means of a rivet to the chest bar b^2, and by a slide m^3; it is also adjustably connected to the cross bar b (Fig. 5). The cross bars b, b', and b^2, placed below the vaulting of the chest and the bars c, d, and e, for the arm pit, shoulder and neck should be adjustable in length. For this purpose they consist each of two elastic metal sections adjustable one upon the other and fixed in their position in any optional length by means of a clasp m^4, shown in Fig. 6. This clasp consists of a pivoted slide n, having a projection n', and of a ring o. The ends of the band are slipped through the ring and by revolving the slide so that its projection enters the ring, it will firmly connect the sections of the band.

The cross bands g, are connected with the wires f, by the clasp m^2, shown in Fig. 2. Here the hook h, is riveted to the band g, while the socket i, is modified in such a manner that it forms a slide. To this effect the socket is provided with a bolt p, and a bridge q, so that the cross band g, on being passed through the socket (Fig. 7) will be clamped in position sufficiently tight to permit the wires f, to be set to the proper place.

The socket i, is connected with the hook h, in such a manner, that the hook with a spring nose k, engages a corresponding recess l, of the socket (Fig. 2).

r, represent slides secured to the longitudinal rods a, and through which pass the elastic bands g, so that they are laterally displaceable. When the degree of adjustment is to be restricted (as for instance where the waist becomes narrower) the shortened elastic bands g, are secured on one side to the hook h, and on the other side to the socket i (Fig. 8).

It is obvious that owing to the elasticity

and the easy adjustment of the apparatus very exact patterns may be obtained, even for persons who are not of normal growth.

The apparatus is operated as follows: The front, rear and side portions having been placed on the body and connected by the hooks and sockets, the arm pit, shoulder and neck bars *c*, *d*, and *e*, are arranged and fixed in the usual manner. Then the bands *g*, are tightened, so that the whole apparatus is applied to the body similar to a knitted garment, whereupon the elastic wires *f*, are so shifted as to precisely coincide with the corresponding seam lines. The clasps are then opened on the connecting places of the longitudinal wires *f*, and on spreading the single portions of the apparatus on an even surface the outer edges of the wires *f*, need merely to be traced for the purpose of obtaining an exact pattern.

What I claim is—

The combination of elastic horizontal bands *g*, with a series of flexible vertical straps, slides for connecting the bands to the straps, wire rods *f*, and clasps for securing the wire rods to the bands, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARIE HORN.

Witnesses:
L. GRAMBORG,
G. HÜLSMANN.