(No Model.)

4 Sheets—Sheet 1.

C. C. EISENBERG.

SHOE FASTENING.

No. 523,517. Patented July 24, 1894.

Fig. 1.

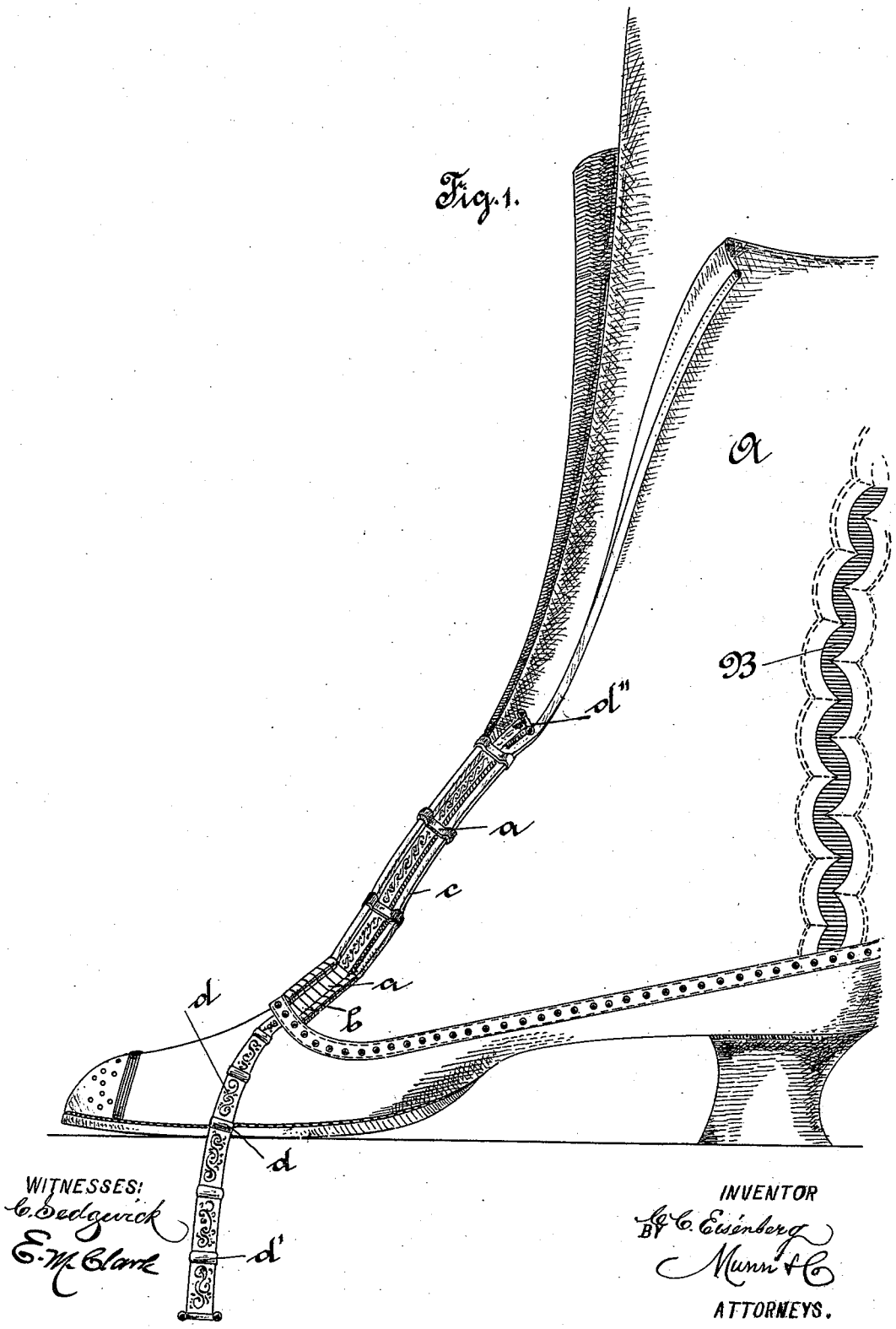

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Fig. 5.

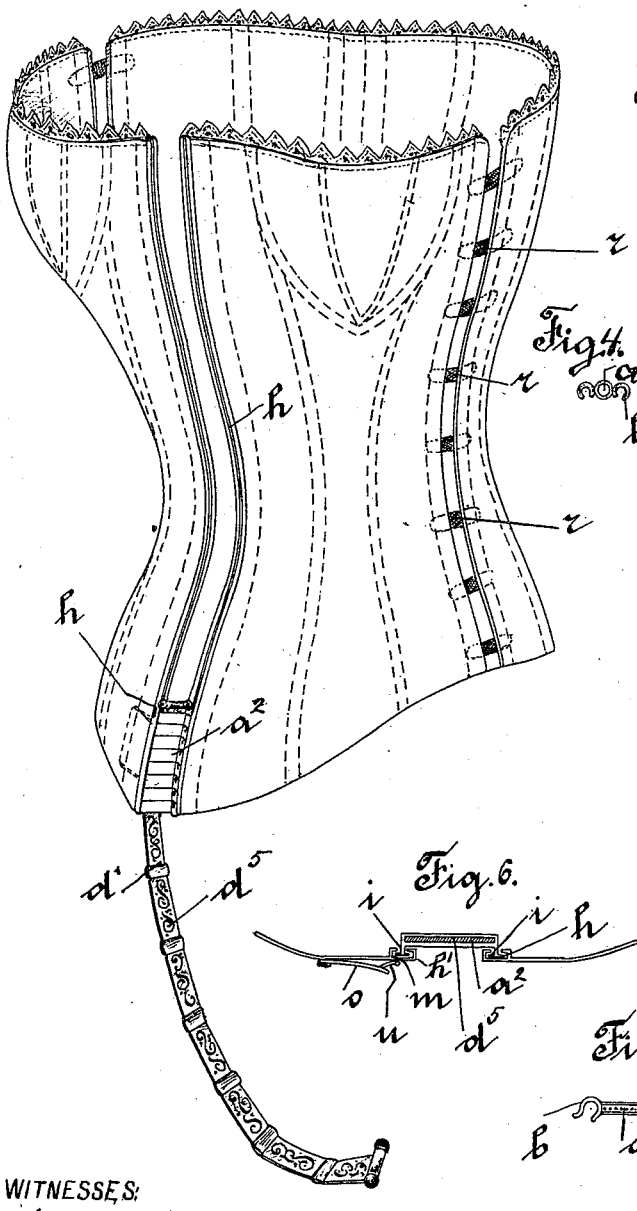

Fig. 4.

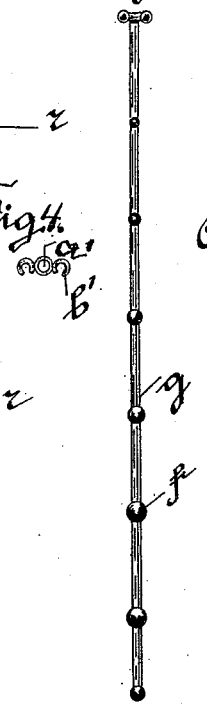

Fig. 4ª.

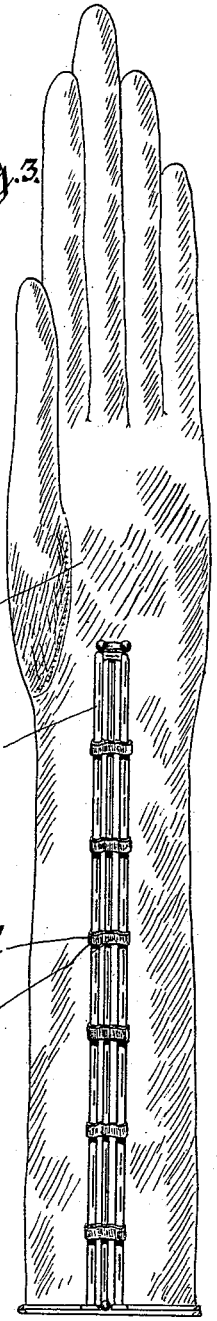

Fig. 3.

Fig. 6.

Fig. 2.

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Fig. 7.

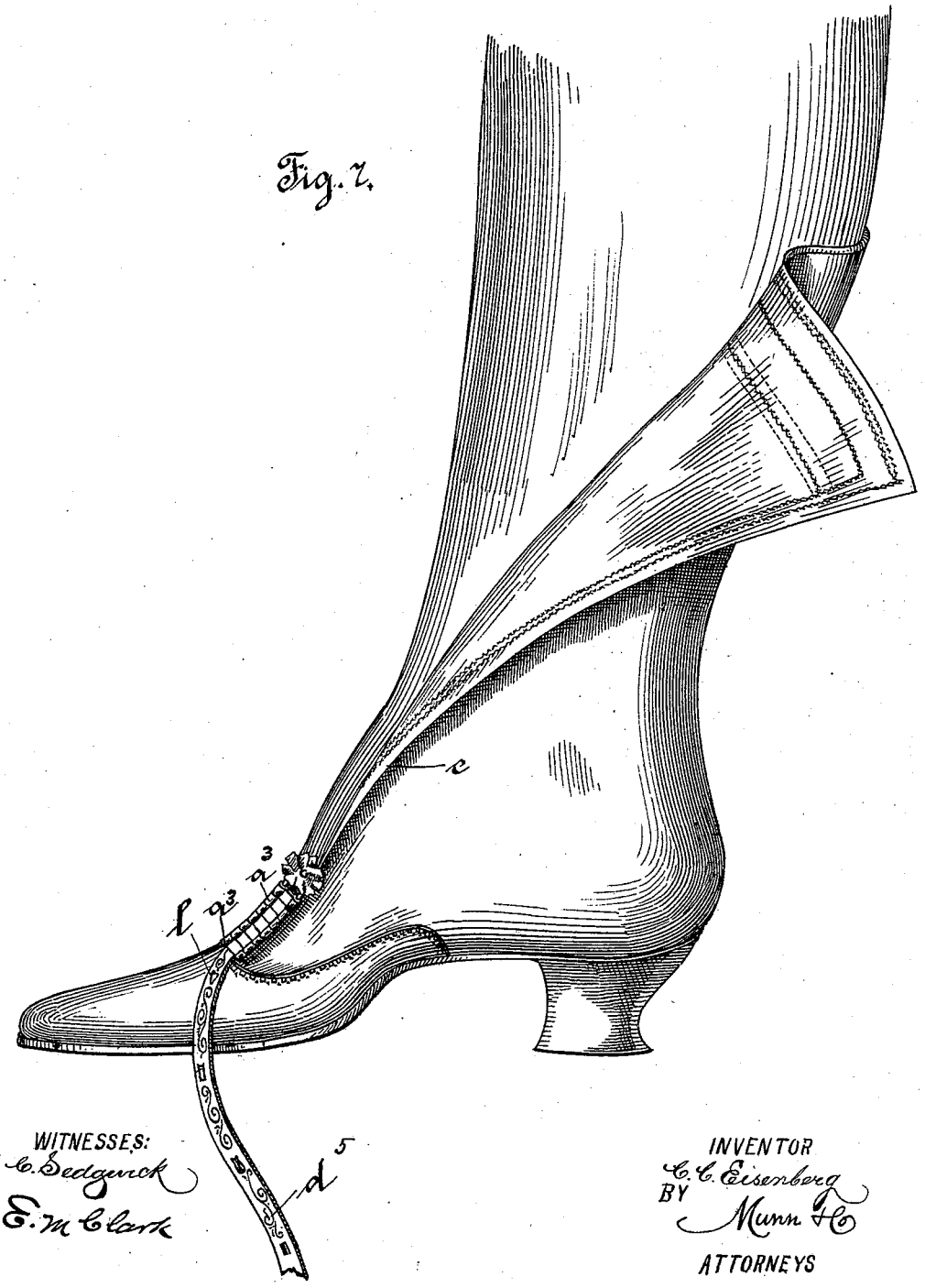

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Fig. 8.

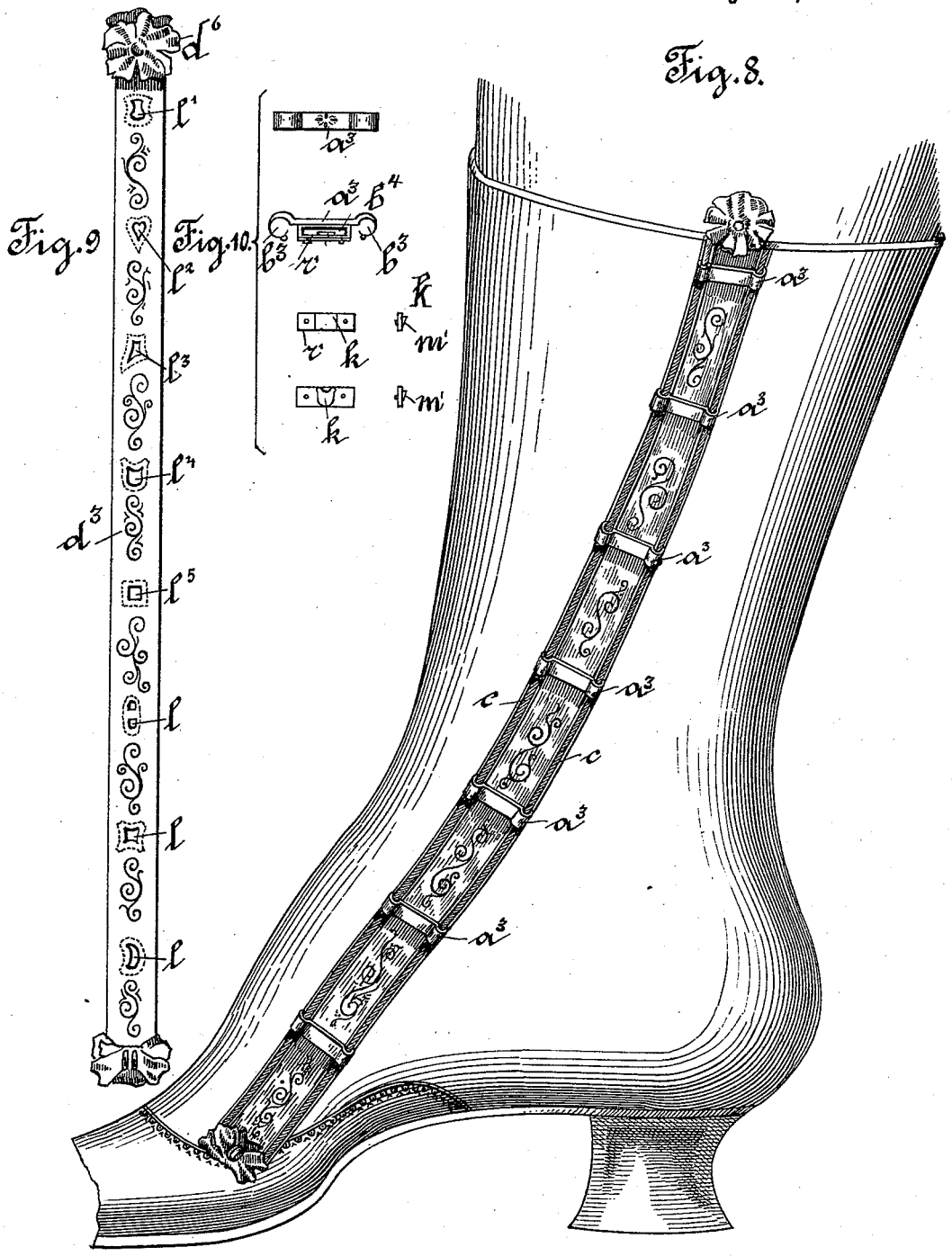

Fig. 9

Fig. 10.

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UNITED STATES PATENT OFFICE.

CHASKEL CHRISTIAN EISENBERG, OF STETTIN, GERMANY.

SHOE-FASTENING.

SPECIFICATION forming part of Letters Patent No. 523,517, dated July 24, 1894.

Application filed November 4, 1892. Serial No. 450,939. (No model.) Patented in Germany September 21, 1891, No. 69,341; in England September 29, 1892, No. 17,360; in France September 29, 1892, No. 225,072; in Russia November 25, 1892, No. 13,869, and in Sweden February 27, 1893, No. 4,732.

To all whom it may concern:

Be it known that I, CHASKEL CHRISTIAN EISENBERG, manufacturer, of 2 Langebruckstrasse and 13 Breitestrasse, Stettin, in the Province of Pomerania and Kingdom of Prussia, Germany, have invented new and useful Improvements in Fastenings for Boots, Gaiters, Gloves, Corsets, and other Articles of Personal Wear, (which has been patented in Germany, No. 69,341, dated September 21, 1891; in England, No. 17,360, dated September 29, 1892; in France, No. 225,072, dated September 29, 1892; in Russia, No. 13,869, dated November 25, 1892, and in Sweden, No. 4,732, dated February 27, 1893,) of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to fastenings for various articles of dress and personal wear, such as boots, shoes, gaiters, gloves, corsets and the like, and its object is to secure ease of manipulation and simplicity of action.

The fastening constructed according to this invention may be modified in a great variety of ways, but in every modification it consists of light connecting pieces or clips fitted with claws or the like which fit upon or engage with guide cords or guide strips secured upon the opposite sides of the part to be fastened. The clips are capable of sliding along the guides and are pulled in one direction and distributed over the length of the guides in the act of fastening, and are pulled in the opposite direction and collected at one end of the guide cords in the act of unfastening. The movement of the connecting pieces or clips along the guides is effected through the agency of suitable bands and the like, as will be hereinafter fully described.

The accompanying drawings illustrate some of the more important modifications and applications of the fastenings constructed according to my invention which I will now proceed to more particularly describe with reference to the various figures thereon.

Figure 1 shows one form of the fastening as applied to a lady's boot. Fig. 2 is an end view of one of the clips or connecting pieces forming part of the fastening shown in Fig. 1. Fig. 3 shows another form of the fastening as applied to a lady's glove, the glove being completely fastened. Fig. 4 is an end view of the clip shown in Fig. 3. Fig. 4^a is a plan of the draft cord. Fig. 5 represents a modification of the fastening as applied to corsets. Fig. 6 is a cross section through the lower part of the fastening Fig. 5. Fig. 7 shows a modification of the fastening applied to a lady's boot, the boot being open. Fig. 8 represents the same fastening as in Fig. 7, but applied to the side instead of the front of the boot, and with the boot fastened or closed. Fig. 9 is a plan of the draft band used with the fastening shown in Figs. 7 and 8, and Fig. 10 shows details of the clips used with the draft band Fig. 9.

The clip *a*, used in the fastening represented in Fig. 1, is shown by Fig. 2, and consists of a hollow body having the two lateral curved extensions *b*, which fit and can slide upon the guide cords *c*. These cords are fitted upon each side of the opening of the boot as shown by Fig. 1. The draft band *d* increases in width at regular intervals which are divided by the joints or cross straps *d'*. These are tapered at each end from the narrower preceding part of the band to the broader succeeding part, and each succeeding joint or cross strap is consequently of a greater length than the preceding one. The holes through the clips *a*, are made with successively increasing widths, the top clip having the shortest opening, and the bottom clip the broadest. The number of clips corresponds with that of the cross straps on the draft band, and the first clip fits upon the first joint cross strap *d'*, the second upon the second cross strap, and so on to the last clip, which fits upon the last cross strap. The upper end of the draft band has a tab d^2 or other device, attached to its upper end by means of which it may be pulled upward, and a similar device may be attached to its lower end for pulling it downward.

To fasten the boot, it is necessary only to pull up the draft band, when the successive joints or cross straps thereon will engage with the successive clips which will be drawn up upon the guide cords and distributed at regular intervals, the boot being thereby securely fastened.

In Fig. 1, the draft band is drawn partly up, and has carried with it the first, second and third clips. In Fig. 7, the draft band has

been pulled entirely down, and the boot is completely unfastened, while in Fig. 8 a boot is shown completely fastened.

The tab or device d^2 at the top of the draft band should not be capable of passing through the hole in the first clip; consequently, when the band is pulled down, the tab engages with the upper clip and draws it down into contact with the second clip, which is then pulled down into contact with the third clip, and so on until all the clips are collected at the bottom, as in Fig. 7. In order to give additional elasticity to the upper part A of the boot, an indiarubber web insertion B may be let in, and may have any convenient and suitable form.

Instead of the draft band having successive increases in its width, it may consist of a cord g, Figs. 3 and 4^a having fixed thereon beads, balls or the like, of successively larger diameters, the smallest being at the top. In this case, the clips a', have round loops b' of successively larger diameters, so that the first bead will pass through all the clips except the first, the second ball through all the clips except the first and second, and so on throughout the fastening. A fastening with such a draft cord, beads and clips is shown by Fig. 3 as applied to a glove, the fastening being closed. The fastening is opened and closed as already hereinbefore described with reference to Fig. 1.

The draft band and clips shown by Fig. 1 are represented in a slightly modified form by Fig. 5, as applied to a corset. The draft band is the same, but the clips and cords differ. The clips a^2, instead of having the curved extensions, have T-pieces f' projecting therefrom which engage in corresponding recesses formed in the guides $h\,h'$ which are employed in substitution for the guide cords c.

To enable the wearer to entirely open the corset, provision may be made for disengaging the clips from one of the guides, as shown in cross section by Fig. 6. The outer part h' of one of the guides, at the lower end of the said guide, is hinged at m so that it may be turned back at will, when the clips may be readily removed from the guide. A light projection n on the back of the hinged part h', is pressed upon by the spring o, and serves to hold it in either the open or the closed position. If required, additional elasticity may be given to the corset by india rubber web insertion, or by the strips r, of india rubber or elastic web.

In the modification represented by Figs. 7, 8, 9 and 10 the clips consist of the body a^3, having the lateral curved extensions $b^3\,b^3$, and an opening b^4 for the passage of the draft band as described with reference to Fig. 1. On the back of each of the clips, there is fastened a flat spring r', Fig. 10, which carries a small projection k. This catch passes through an opening in the back of the clip and penetrates partly across the opening b^4 of the clip. The spring is made with such an amount of elasticity as to permit the draft band to pass under the projection, and to aid this, the projection may be beveled on one side m' as indicated. Each of the projections has a different form, and the draft band d^5 has corresponding holes formed in it at suitable distances apart for the reception of the projections. The holes are strengthened by metal plates in which the holes are also formed as indicated by Fig. 9, where the dotted lines show the outlines of the metal plates around the several holes l. The shapes of the holes and projections are such that one projection will fit only its corresponding opening l', l^2, l^3, &c., in the draft band d^5.

The draft bands may be constructed of leather or other suitable material and may be ornamented at will. In place of the tabs or the like, for handling them, they may be provided with rosettes or ribbons d^6 for the same purpose.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A fastening for boots, shoes and other articles of wear, consisting of a draft band having a series of clips thereon, and movable on suitable guides arranged along the edges of the parts to be fastened, the said clips varying from each other and the band having devices corresponding to the clips for engaging each its corresponding clip, whereby the said devices will successively move the clips in one direction for fastening the parts, and collect them when moved in the opposite direction, substantially as described.

2. In fastening devices for boots, shoes and other articles of wear, the combination, of a cord, band or the like, and clips thereon engaging suitable guides along the parts to be fastened, the said band increasing in width from one end to the other and carrying cross straps of varying widths, the clips being correspondingly widened for causing engagement with the corresponding cross straps of the band, substantially as described.

3. In a fastening for boots, shoes and other articles of wear, the combination, of a band and a series of clips thereon engaging suitable guides arranged along the edges of the parts to be fastened, the clips being graduated and the band having corresponding graduated devices, for successively engaging said clips, substantially as described.

4. In a fastening of the type hereinbefore described for corsets, a draft band having successive increases in width and provided at each increase with a cross strap or joint, clips having T-shaped extensions engaging in guides and adapted to be successively engaged by the draft band, and a hinged part to one of the guides, constructed and arranged substantially as and for the purpose set forth.

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Witnesses:
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PAUL BRINKMANN.