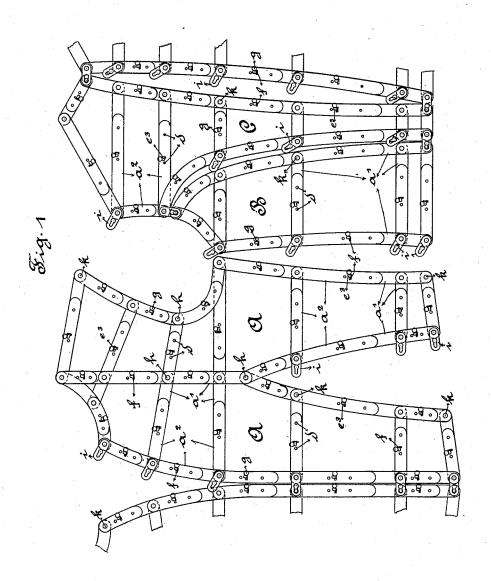
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ADJUSTABLE DEVICE FOR OUTLINING PATTERNS FOR GARMENTS.

No. 383,926. Patented June 5, 1888.



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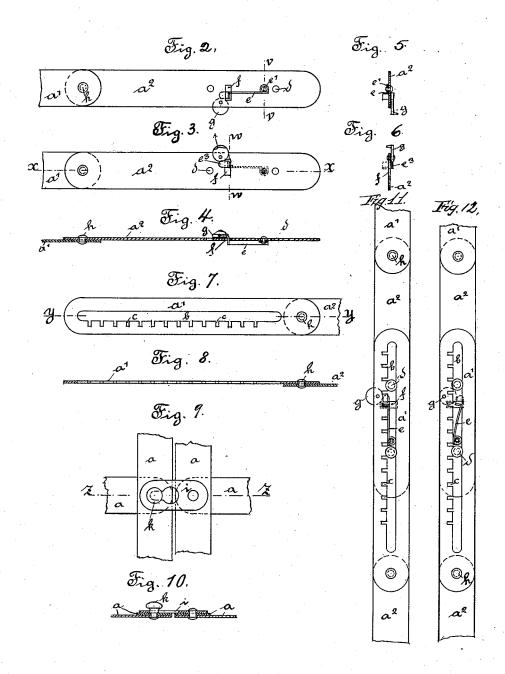
Inventor Anton Warths

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witness: Bloi. A. Kühn Inventor: Anton Wachter.

## UNITED STATES PATENT OFFICE.

ANTON WÄCHTER, OF BERLIN, GERMANY.

## ADJUSTABLE DEVICE FOR OUTLINING PATTERNS FOR GARMENTS.

SPECIFICATION forming part of Letters Patent No. 383,926, dated June 5, 1888.

Application filed November 7, 1887. Serial No. 254,513. (No model.)

To all whom it may concern:

Be it known that I, Anton Wächter, a subject of the King of Prussia, German Emperor, residing at Berlin, in the German Empire, have invented a new and useful Improvement in Adjustable Devices for Outlining Patterns for Garments, of which the following is a specification.

The object of this invention is to produce
a frame-work of bars easily adjustable at all
points to the outline of a human body, and
provided with fastenings for holding it in such
adjustment, yet with the parts easily separable,
in order that the outlines thereof may be traced
on paper or other material to form the outlines
of the patterns by which a garment is to be made.
This object I attain by means of the construction and combination of devices hereinafter set
forth and claimed; also, for making adjustbe able model-busts my apparatus is excellently
suited. I attain these objects by the mechanism illustrated in the accompanying drawings.

In Figure 1, A represents a front part, B a lateral part, and C a back part, of a waist. Fig. 2 represents an enlarged detail plan view of one of the flat bars a' and a part of one of the flat bars a'. Fig. 3 represents a similar view of the other side of the same. Fig. 4 represents a longitudinal section on the line 30 x x of Fig. 3. Fig. 5 represents a cross section on the line v v of Fig. 2. Fig. 6 represents a similar section on the line w w of Fig. 3. Fig. 7 represents a plan view of one of the flat bars a' and a part of one of the flat bars a'. Fig. 8

35 represents a longitudinal section on the line y y of Fig. 7. Fig. 9 represents a plan view of parts of four of the plates α. Fig. 10 represents a vertical section of the same on the line z z of Fig. 9. Figs. 11 and 12 represent plan 40 views of two of the flat bars α' α² and the devices for locking them, Fig. 11 showing these latter in the locking position and Fig. 12 in the position which does not lock. Parts of other flat bars α' α² are shown also.

45 The apparatus consists of thin bands, a, of metal or any other suitable material.

The lower flat bars or plates, a', have longitudinal slits b and small cross-incisions c.

Through the longitudinal slits catch rivets d,
oriveted to the upper flat bars or plates, a<sup>2</sup>, and holding both bands together in such a manner that the same can be displaced in their longi-

tudinal direction. The adjustable parts are fastened by small springs e. The same are likewise riveted to  $a^2$  by means of strap e', and 55 catch with their hooks e2 into the cross-incisions c of the band a', fixing any given position of both bands. The strap  $e^3$  catches through the small cross-slit f of the flat bar or plate  $\bar{a}^2$ , and serves not only to take hold of the spring in 60 pressing same back, but also to secure a good working. In order to effect a simultaneous disengagement of several springs, the small eccentric, g, near each spring, has been attached to the band  $a^2$ . By turning the eccentric the 65 spring is pressed back, and remains in this disengaged position until the eccentric has been returned.

While in one extremity the flat bars or plates are connected with each other so as to admit of 70 being displaced in their longitudinal direction, they are in their other extremity revoluble on each other, connected with each other by means of rivets h, so that thereby perfect adjustability of the apparatus in all directions 75 is allowed.

By means of clasps i and knobs k, or other suitable appliances, the several parts, A, B, and C, are connected with each other.

When to be used, the apparatus is put around the body and closed by means of the locks i and knobs k. If it does not accurately fit, the springs e, where necessary, are disengaged from the incisions c, and the flat bars or plates concerned shoved somewhat asunder or together until the apparatus well fits. Then the connection is kept or fixed in position by making the springs e catch the incisions c. Then the locks i are opened, and the several parts, A B C, placed upon paper, whereupon the outlines are traced. Thus closely-fitting cut patterns are obtained.

What I claim as my own is-

1. In an apparatus for pattern-making, consisting of a number of jointed bars to fit the 95 human figure, the combination of a series of flat bars, a' and  $a^2$ , sliding over each other and having longitudinal slots b and communicating transverse slots c formed therein, with springs c, attached to the bars  $a^2$  and provided now with hooks  $c^2$ , which enter said cross-slots to hold said bars a' a' in any position to which they may be adjusted, substantially as set forth.

2. In combination with a series of flat bars,

a', and another series of flat bars,  $a^2$ , movable over each other and provided with longitudinal and transverse slots, as described, a series of springs attached to the bars of one series and provided with hooks for engaging with the transverse slots of the other and provided with the stars of the other and provided with longitudinal as set forth.

ANTON WÄCHTER. transverse slots of the other series, and eccentrics g, arranged on bands  $a^2$  near the respect-

B. Roi, A. KÜHN.