

(No Model.)

2 Sheets—Sheet 1.

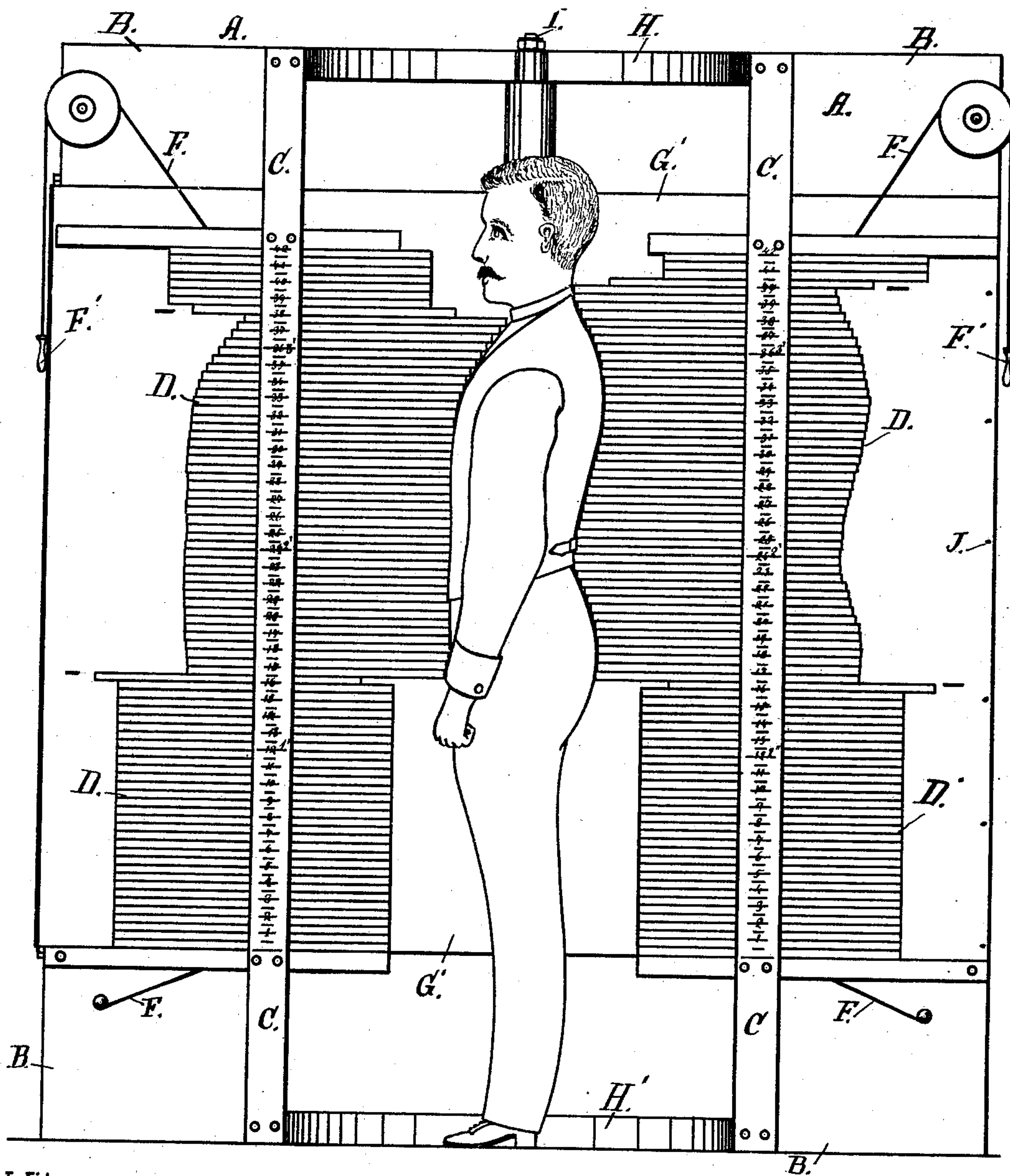
J. S. HAND.

TAILOR'S OUTLINE MEASURING DEVICE.

No. 341,572.

Patented May 11, 1886.

Fig. 1.



Witnesses:

*Wm. Mayer*  
*Joseph Ford*

By

Inventor:

*John S. Hand*  
*Edw. Smith*  
Atty.

(No Model.)

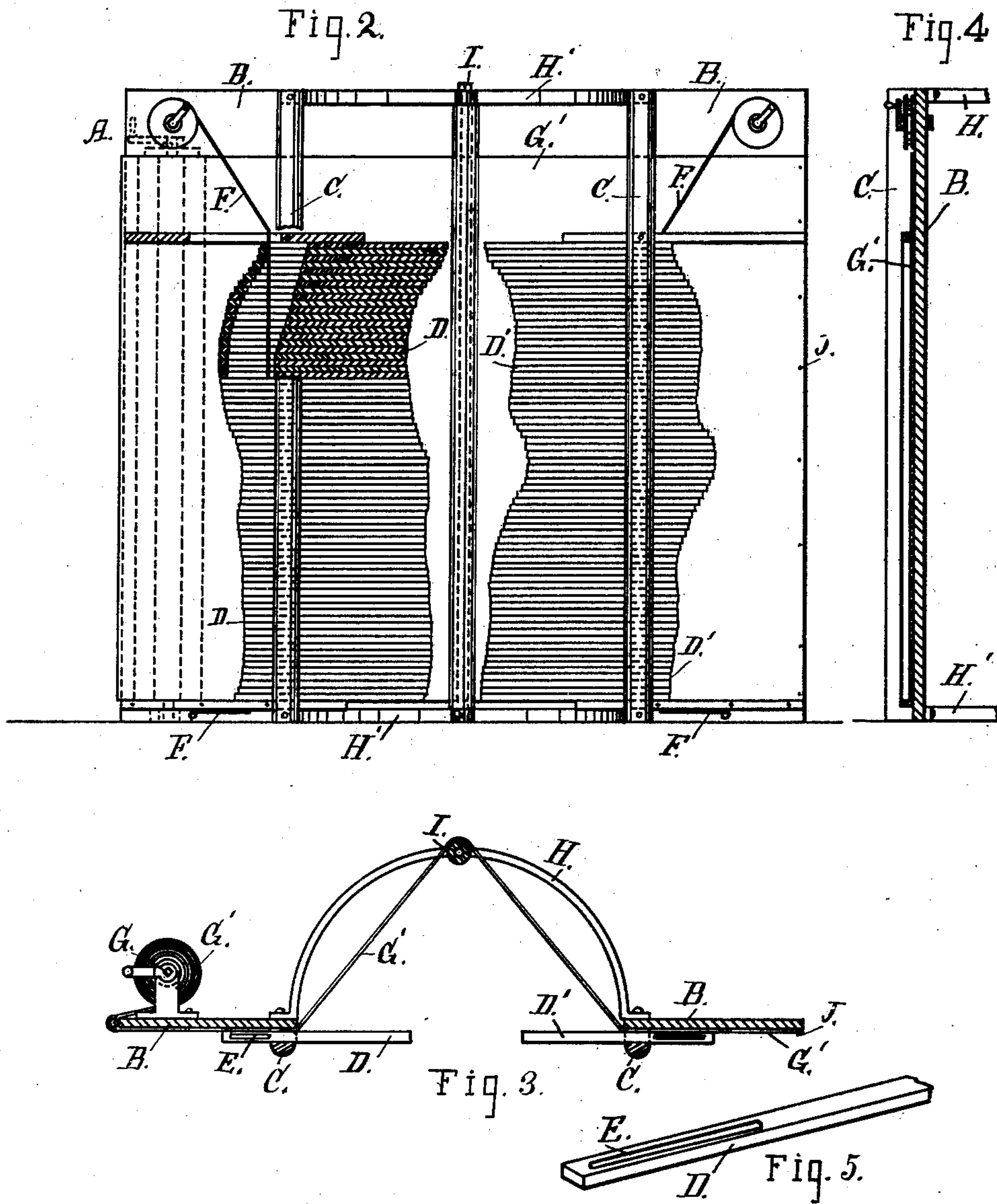
2 Sheets—Sheet 2.

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*Wm. Mayer*  
*Joseph F. Ford*

Inventor:

*John S. Hand*  
By *Ernest Smith*  
Att'y.



# UNITED STATES PATENT OFFICE.

JOHN S. HAND, OF SAN FRANCISCO, CALIFORNIA.

## TAILOR'S OUTLINE MEASURING DEVICE.

SPECIFICATION forming part of Letters Patent No. 341,572, dated May 11, 1886.

Application filed July 31, 1885. Serial No. 173,179. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. HAND, a subject of the Queen of Great Britain, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Tailor's Measuring Device, of which the following is a specification.

The object of my invention is to provide a means whereby the measurements of a person or figure can be mechanically taken or ascertained without the aid of a square, compass, or tape-measure; and it consists of a frame in which operate a system of sliding arms, the ends of which are caused to move against the centrally or interposed figure of the person or object against which the system of sliding arms impinge, in which position the outlines of the figure are formed at the right and left of the sliding arms, and transferred to paper connected to or in close proximity to the frame, and the measurements taken from the paper so marked upon the cutter's table.

In the accompanying drawings, forming a part of this specification, and to which reference is had, Figure 1 is a front elevation of my improved measuring device. Fig. 2 is a vertical elevation of the same. Fig. 3 is a horizontal section. Fig. 4 is a vertical section, and Fig. 5 represents one of the movable arms.

A represents the frame of my device, which is provided with upright side pieces or boards, B B. Cleats C C are secured to these boards B B in such a manner as to leave ways or spaces between them and the side boards, in which are arranged two series of sliding arms or slats, D D', as shown in Figs. 1 and 3. These arms are laid flatwise, one above the other, in two vertical series, one series being situated on each side of the object to be measured, and each arm is provided with a slot, E, through which passes a wire or tape, F, connected at the lower end to the floor or base of the frame, and having the opposite end extending over a pulley and provided with a handle, F', so that by pulling down the handle all of the arms can be drawn backward into line and each individual arm be thrust forward by the fingers of a person without moving any other arm of the series.

In the rear of the frame is situated a verti-

cal spindle, G, upon which is wound a roll of paper, G', of any desired width, upon which the measurements or diagram are to be taken. The side boards, B B, are connected with each other by means of semicircular pieces H H', located immediately behind the space between the two side boards, or the space between the two vertical series of arms, wherein is situated the object to be measured. These pieces are situated, the one, as H, at the top of the frame, and the other, as H', at the bottom of the same, this latter being connected with the floor of the frame. The semicircles support the upper and lower ends of a vertical spindle, I, journaled into them near their middle portions. Around this spindle is placed a sleeve, made of gas-pipe or other thin metal, upon which the paper comes in contact with as little friction as possible as it is drawn from the roll or spindle G, to be hereinafter more fully described.

A graduated scale is made upon the face of each of the uprights or cleats C C, for convenience in taking the outlines of the figure to be measured.

The operation in measuring with my device will be as follows, to wit: The sliding arms are first drawn into their normal position in two vertical series, the ends of the arms of each series being situated in a perpendicular line, so that thus a large space is left between the two series, in which the person or figure to be measured is to stand. This is done by grasping the handle F' and drawing the wires or tapes taut, as above explained. The operator will then move forward with his hands or fingers the movable arms in succession, commencing at the top, until the inner ends of the arms touch the body or figure from the neck downward, and when this is accomplished the outline of the front and back of the figure will be formed by the outer ends of the movable arms upon each side of the frame, (shown at Fig. 1,) which outlines are then to be taken upon paper, and for this purpose the vertical roll of paper at the side of the frame, heretofore described, is provided. The free end of this paper roll or web passes from the spindle G around the board B on that end of the frame, and then behind the movable arms through a space between the board B and



cleat C. Thence the paper is carried around back of the spindle or roller I, and then carried around the board B, between it and cleat C, on the opposite side of the frame, in like manner as has just been described for the first side. This arrangement of the paper is shown in Fig. 3, and it is my practice, as there shown, to take from the reel or roll of paper a sufficient length to cover the whole front of the frame back of both series of movable arms, in which position the end of the web or sheet of paper is pinned to the corners of the right-hand side of the frame in the pin-holes J, and in this position the outlines are taken from the outer ends of the series of arms at both sides and traced upon the face of the sheet of paper with a pencil. Then the web or marked portion is cut from the left-hand corner of the frame and transferred to a cutting board or table and the lines drawn in extension upon the chart so formed. The end of the web of paper is left in position upon the frame, to be drawn forward again and pinned to the frame for another measurement, which is repeated in the same manner as before, after the movable arms have been drawn backward into vertical line by means of the wires or tapes and handles for operating the same.

30 In taking measures for pantaloons the person will stand upon a raised removable platform and the calculation for the circumference made in the usual way after the outlines have been taken with my measuring device.

35 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a measuring device, the within-described means for taking profile or other measurements, consisting of a frame, A, having side boards, B B, provided with cleats

C C and semicircular pieces H H', in which frame are situated two vertical series of movable slats, between which is a space to receive the object to be outlined or measured, and which are adapted to be moved forward individually against the said object, in the manner as herein set forth and specified.

2. In a measuring device, the means herein described for automatically drawing back the movable arms into a vertical position or line away from the person or object, which means consist in providing the arms with uniform slots and wires or cords passing through and operating in the slots by means of cranks or handles, in the manner set forth and specified.

3. In a measuring device, the combination of a vertically-arranged paper-roll, the side boards, B B, having cleats C C, the semicircular pieces H H', and the spindle I, journaled in said semicircular pieces, the whole arranged as described, so that the paper from the roll may be passed in front of the side boards and behind the spindle I, for the purposes set forth.

4. In a measuring device, the combination and arrangement of the movable arms and the wires or cords for automatically bringing the outer ends into a vertical line, the roll of paper back of the movable arms, the web of which is adapted to be drawn through openings back of the movable arms in such a position with relation thereto as to receive marks or impressions upon its face, for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

JOHN S. HAND. [L. S.]

Witnesses:

C. W. M. SMITH,  
JAMES L. KING.