

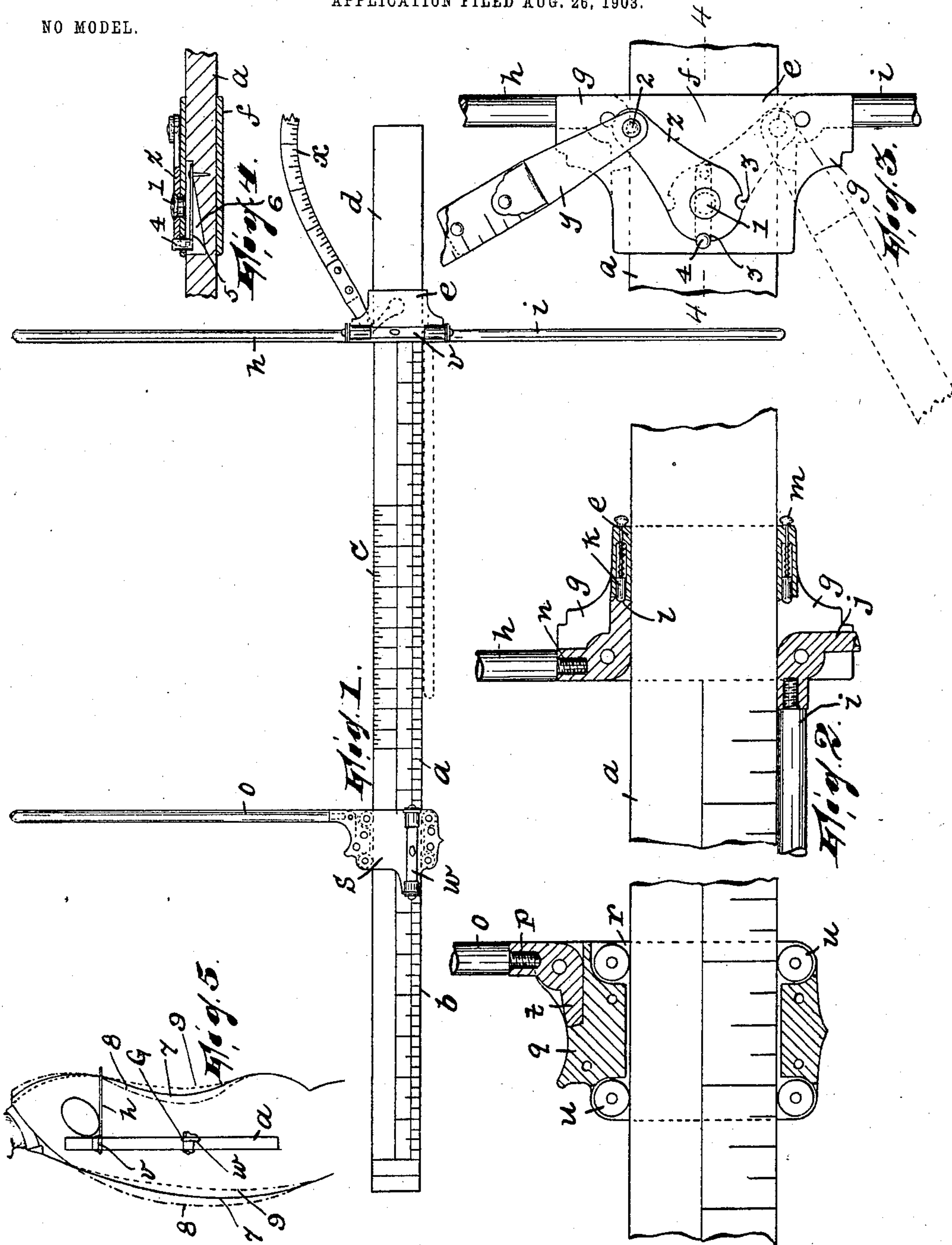
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S. M. GRIFFEN.  
TAILOR'S MEASURE.

APPLICATION FILED AUG. 26, 1903.

NO MODEL.



WITNESSES:

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## UNITED STATES PATENT OFFICE.

STEPHEN M. GRIFFEN, OF SUMMIT, NEW JERSEY.

## TAILOR'S MEASURE.

SPECIFICATION forming part of Letters Patent No. 754,765, dated March 15, 1904.

Application filed August 26, 1903. Serial No. 170,788. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN M. GRIFFEN, a citizen of the United States, residing in Summit, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Tailors' Measures; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention consists in certain improvements, hereinafter indicated, in tailors' measures of the kind disclosed in my United States Letters Patents Nos. 537,285 and 688,303.

Leading objects of the invention are to so construct the implement that it can be packed together into small compass and so that it can be adapted for readily taking measurements interchangeably at opposite sides of the person being measured.

The invention will be found fully illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of the measure, certain calipers being extended. Fig. 2 is an enlarged view of the measure, showing certain parts in section. Fig. 3 is an enlarged detail view illustrating the mounting of the tape-scale. Fig. 4 is a sectional view on the line 4 4 in Fig. 3, and Fig. 5 is a diagrammatic illustration of the manner of using the implement.

*a* designates an arm provided with scales *b* and *c* and formed at one end as a handle *d*.

*e* is a block fixed, as by a screw *f*, to the arm near the handle end thereof and surrounding the same. Projecting laterally from the block *e* adjacent each edge of the arm *a* are parallel wings *g*, in which are fulcrumed calipers *h* *i*, adapted to fold down against the arm, as indicated in dotted lines in Fig. 1, and each provided with a stop *j* for limiting its movement past the point where it stands at right angles to said arm, the stop at this time bearing against the adjacent edge of the arm and being adapted to be there held by a spring-actuated latch *k*, arranged in block *e* and taking in a notch *l* in the stop. By pulling outwardly on a knob *m* on the latch the caliper may be re-

leased, so as to be folded back against the arm. Each caliper is preferably formed in two parts screwed together, as at *n*, so that, if desired, the caliper proper may be detached. Adapted to coact with caliper *h* in taking certain measurements is another caliper, *o*. This is also made in two parts screwed together, as at *p*, and it is fulcrumed, so as to fold down against the arm *a* in a block *q*, cut out, as at *r*, to receive arm *a* and provided with a plate *s*, spanning the recess *r* and the arm. Caliper *o* has a stop *t*, adapted, like the stops *j* of calipers *h* and *i*, to limit its movement past the right-angle position relatively to the arm. Block *q* slides on the arm, and in order to facilitate its action and avoid abrading the arm *a* the block is provided with antifriction-rollers *u*, bearing against the edges of the arm. As in my Patent No. 688,303, each block *e* and *q* is provided with a spirit-level *v* and *w*, respectively, the former being arranged transversely and the other longitudinally of the arm.

*x* designates the tape-scale. This is fixed at one end in a metallic clip *y*, which is pivoted to the end of a lever or swinging arm *z*, arranged against one face of the block *e*, so as to swing around a pivot 1 through approximately ninety degrees. The clip *y* is pivoted to the end of the arm, as at 2. In the arm are two notches 3, into which is adapted to fit a detent 4 on a plate-spring 5, fixed over a recess 6 in arm *a* and between the latter and block *e*. When the detent is engaged with arm *z*, it maintains it securely where pivot 2 is coincident with one of the edges of the arm *a*.

It is unnecessary here for me to describe the manner of using generally the implement. That can be understood by others skilled in the art upon reference to my prior patents mentioned. It should be remarked, however, that by providing in addition to the calipers *h* and *o* the caliper *i*, projecting oppositely to and alined with one of the other two, convenience in using the implement is greatly augmented, for then the implement is rendered reversible for the taking of measurements where a caliper is under the armpit of the person being measured and arm *a* stands perpendicular and in such manner, it should be observed, that the scale on arm *a* can always be



read from the outside by the person taking the measurements, which will be recognized as a great convenience. The implement being thus reversible, it becomes necessary to  
 5 render the tape-scale shiftable from one edge to the other of arm  $a$ , and this is afforded by the means shown in Figs. 3 and 4, wherein it is only necessary to depress the detent 4 sufficiently to clear the notch which it engages in  
 10 order to be able to shift the arm  $z$ .

Too much stress cannot be laid on the value of the spirit-levels, and especially the one marked  $v$ , in taking measurements. The implement being placed with a caliper  $h$  or  $i$  under the armpit of the person being measured  
 15 and so that the spirit-level  $v$  indicates perfect perpendicularity, it is absolutely impossible for a competent measurer to miscalculate even in taking dimensions from the most abnormal  
 20 forms. In Fig. 5 we have the normal form in full lines and the abnormally erect and stooping forms in dot-and-dash and dotted lines, respectively. The greatest likelihood of miscalculations occurring is at the natural waist-  
 25 line; but by employing my implement in the manner above indicated, so as to derive an accurate standard of measurement, even the most abnormal forms can be measured with perfect  
 30 nicety. Thus, working from point  $G$  at the side of the form being measured, which is a point at the intersection of the natural waist-line and the working edge of arm  $a$  when the perpendicular position of the latter has been  
 35 found, the most accurate measurements can be taken, whether the form be normal, as indicated by the full lines 7; abnormally erect, as indicated by the dot-and-dash lines 8, or ab-

normally stooping, as indicated by the dotted lines 9.

Having thus fully described my invention, 40 what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of an arm provided with a scale, a caliper, a block arranged on said arm and having parallel wings, said caliper being 45 pivoted in the block between the wings, and a latch carried by the block and engageable with the caliper to hold the same in a given position relatively to the arm, substantially as described. 50

2. The combination of an arm provided with a scale, a tape-scale, a lever or swinging arm, said tape-scale being pivotally connected to said swinging arm eccentrically thereof, and a pivot for said swinging arm arranged inter- 55 mediate the edges of said first-named arm, substantially as described.

3. The combination of an arm provided with a scale, a tape-scale, a lever or swinging arm, said tape-scale being pivotally connected to 60 said swinging arm eccentrically thereof, a pivot for said swinging arm arranged intermediate the edges of said first-named arm, and means for securing said swinging arm with its point of connection with the tape at either of 65 two positions, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of August, 1903.

STEPHEN M. GRIFFEN.

Witnesses:

JOHN W. STEWARD,  
 ROBERT J. POLLITT.