

April 16, 1935.

E. J. BLISS

1,997,920

GLOVE FITTING DEVICE

Filed Feb. 12, 1932

2 Sheets-Sheet 1

Fig. 1.

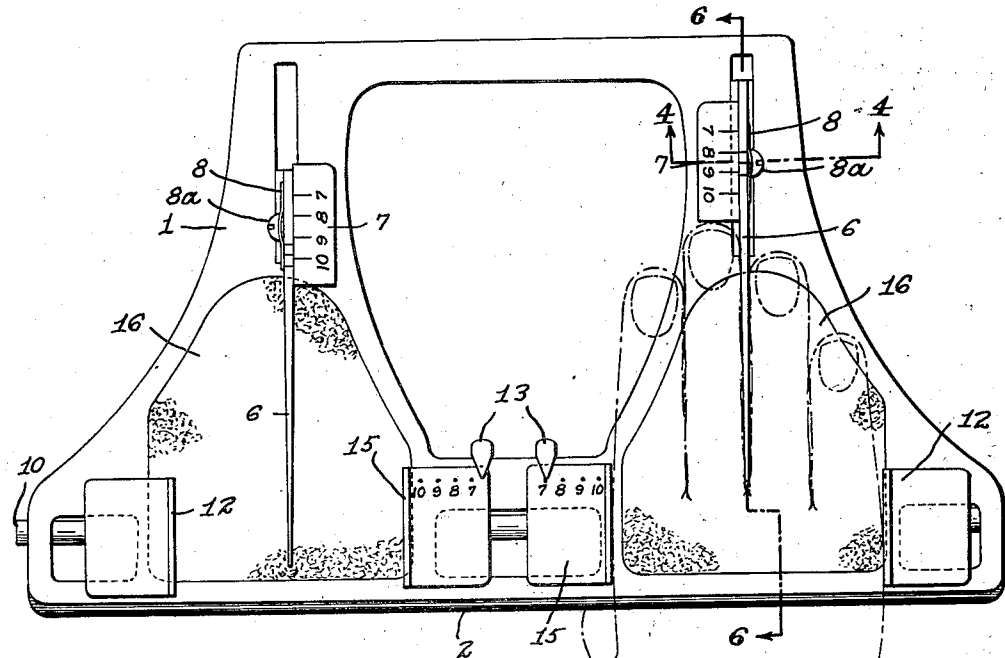
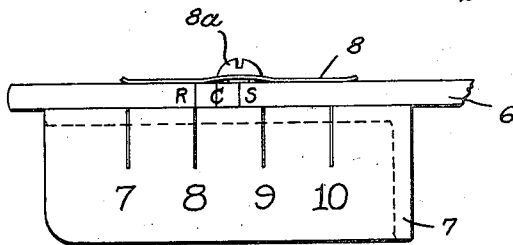


Fig. 3.

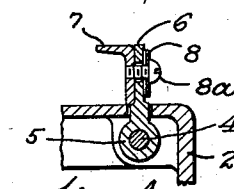


Fig. 4.

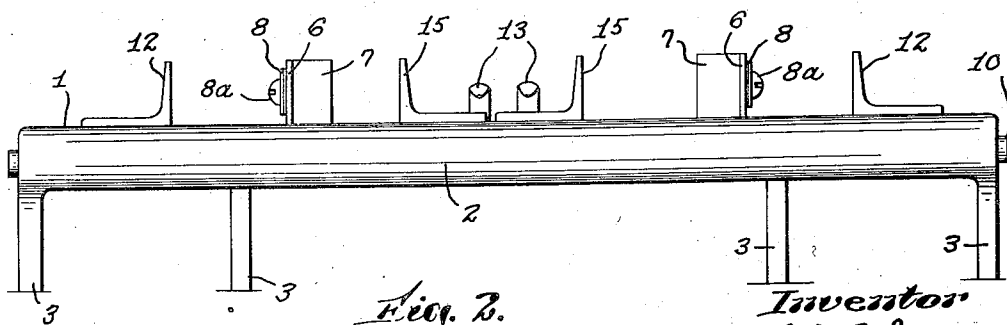


Fig. 2.

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Fig. 5.

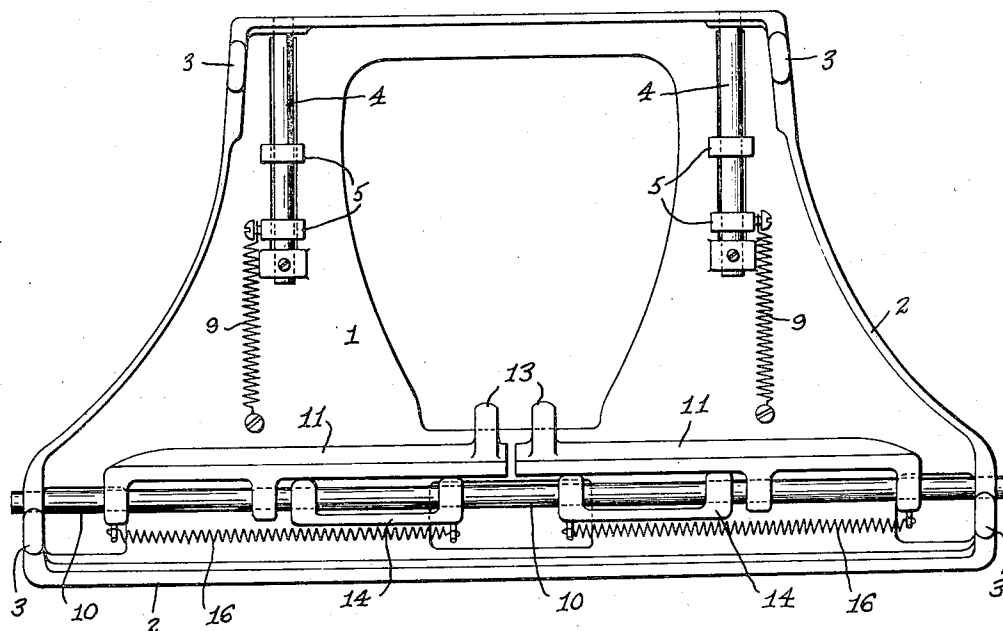
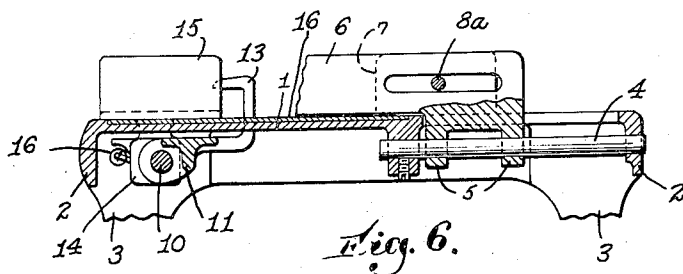


Fig. 6.

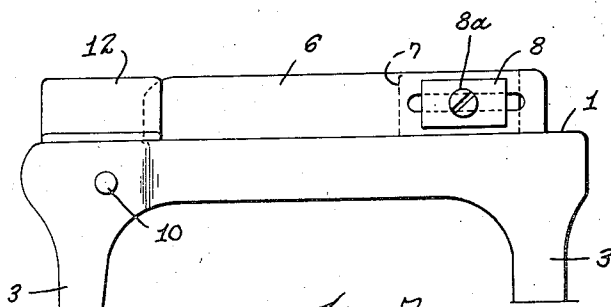


Fig. 7.

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UNITED STATES PATENT OFFICE

1,997,920

GLOVE FITTING DEVICE

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Application February 12, 1932, Serial No. 592,530

8 Claims. (Cl. 33--2)

This invention relates to glove fitting and is intended to provide a simple and reliable device or apparatus for the purpose of conveniently and quickly obtaining the proper size reading through the measurement or calipering of both hands of a customer who is to be fitted with gloves.

Gloves are graded in size according to the girth in inches around the palm of the hand, excluding of course the thumb, and it is the common practice to measure the circumference of the palm with a measuring tape, preferably with the palm pressed flat against a table or counter. However, gloves of the same size measurement or palm girth are also made to accommodate hands in which the distance from the tip of the middle finger to the base of the finger varies in individual cases. Accordingly, gloves of any particular size are graded into three different length classifications denominated regular, cadet and short, the regular length increasing by a definite increment for each increase in girth measurement, while the other two length designations are correspondingly shorter in each case by definite dimensions.

It is to meet this condition that I have devised the apparatus for glove fitting hereinafter described.

In its general features it comprises side gauges relatively movable to caliper the width of an interposed hand and an associated length caliper for measuring and indicating the particular length-size of glove appropriate to the particular length of the middle finger in proper correlation with the width-size of the glove.

This and other features of the invention will be particularly described in the following specification and will be defined in the claims hereto annexed.

In the accompanying drawings I have illustrated a simple and convenient arrangement of apparatus embodying the principles of this invention, in which

Fig. 1 is a plan view of the device showing a hand in process of being measured for the purpose of indicating the proper selection of glove therefor.

Fig. 2 is a front elevation of the device.

Fig. 3 is an enlarged detail view showing the length indicating means.

Fig. 4 is a cross sectional view on line 4-4 of Fig. 1.

Fig. 5 is a bottom plan view showing the means for supporting and retracting the calipering members.

Fig. 6 is a vertical section on plane 6-6 of Fig. 1.

Fig. 7 is a side elevation of the complete device.

In the practice of the invention according to the illustrative form shown in the drawings, I provide a table or platform 1 having a peripheral depending flange 2 with front and rear supporting legs 3 to raise it somewhat above the table or counter to give proper clearance for the moving parts beneath and also to allow each thumb to pass underneath the table, so as to be out of the way of the gauges which caliper the width of the palms.

I will first describe the means by which any particular width or girth of hand is measured to give a reading indicative of the proper length of glove in that size, first explaining that the device is a duplex one for measuring both the right and the left hand of the customer. The mechanism in both cases is the same but with the reverse disposal of the right and left parts of the device.

The length measuring or indicating device comprises a thin longitudinal blade 6, whose rear end is continued through an appropriate slot in the table 1 to connect with a carriage comprising two perforated lugs 5 slidably mounted on track members or rods 4, that are supported on the underside of the table in parallelism with the plane of the table so as to permit the length blade to slide forward and back, in order to bring the forward end of the length measuring member snugly against the space between the second and the third finger, assuming of course that the second or so-called middle finger is the longest finger of the hand. A retractile spring 9 secured at its rear end to the carriage or slide 5 and at its forward end to an anchoring member fixed on the bottom of the table 1 serves to automatically advance the finger measuring blade to the fork or bottom of the space between the fingers that embrace the blade, although of course this can be moved to gauging position by the salesman taking the measurement.

At a predetermined distance from the front end of the gauging or calipering blade are laid out three spaced marks lettered R, C and S to indicate the regular, the cadet, and the short measurements of gloves of any designated size. Adjustably secured to one side of the blade is a scale member 7 bearing glove size indications from 7 to 10, inclusive. This scale member is in the form of a block having one lateral face against the adjacent side face of the blade to which it is attached, a top face displaying the

scale and a front face for gauging against the tip end of the finger. When made of metal it will preferably be made of hollow form. The marks indicated by numerals 7, 8, 9 and 10 on this scale, when in registry with the blade mark R, will indicate what is known as the regular length of finger for the particular size of glove indicated. If the width-size reading indicates a number 8 glove and the second finger has the length measurement corresponding to the so-called regular length, then when the scale member is brought into contact with the tip of the middle finger the reading indication would be 8—R, assuming of course that the blade is in contact with the fork between the base of the second and third fingers, but if the number 8 hand has a finger length shorter than normal, then the number 8 mark on the scale member will register either with the C mark on the blade or the S mark on the blade.

I will now describe the means for giving the size number of the hand being measured. For calipering each hand there is provided an outside gauge member 12 of L-shaped form and an inside gauge member 15 of similar form. The gauge member 12 is connected with an underneath slide or carriage 11 by which it is movably supported and the carriage 11 has perforated lugs fitting over a transverse slide rod 10 secured beneath the table in parallelism with the plane of the table so as to permit the outside gauge 12 to move in or out to gauge against the outside of the hand. The carriage 11 has an inward elongated extension provided with a rearwardly projecting hook-shaped pointer 13, which is arranged to travel across the co-acting gauge member 15, which is provided at intervals with scale marks designated by numerals 7, 8, 9 and 10 to indicate the width measurement of a hand of corresponding girth around the palm. This cooperating scale bearing gauge member 15 is similarly supported by a slidable carriage 14. Preferably the two carriages 11 and 14 are drawn toward each other by a retractile spring 16, so that they gauge against the opposite sides of the hand with a uniform predetermined tension or pressure. Preferably that portion of the table, which supports the hand being measured, is provided with a thin covering 16 of felt or other fabric.

In practice, the customer places each hand on the table as indicated in dotted lines in Fig. 1 and the gauges 12 and 15 are drawn with a light pressure against opposite sides of the hand and, since the pointer 13 is connected with one gauge, in this case the outside gauge, and the scale is carried on the related gauge and, since each gauge is free to move independently of the other, there is provided an automatic caliper for calipering the width of the hand according to established size designations used in glove making, so that a correct reading of the size number of the glove is instantly given by the pointer on the scale. The blade 6 is moved forward preferably by its positioning spring 9 until its forward end rests against the section of skin connecting the bases of the second and third fingers. The salesman then moves the scale block along the blade into contact with the tip of the second finger. This scale block is preferably frictionally held in place by means of the slight bowed sheet spring 8, which is kept under frictional tension by the attaching screw 8^a and engages the opposite side of the blade 6 to that on which the gauge member 7 is mounted. If the hand calipering and indi-

cating reading indicates a number 8 hand, then unless the hand is quite abnormal the mark designated 8 on the scale member 7 will move approximately into registry with one of the three length designating marks R, C, S. The reading given in Fig. 1 of a hand being measured and also the corresponding reading in Fig. 3 indicates that a number 8 glove of regular length is the proper glove to select for fitting the hand giving such size readings.

Care should be taken to see that the length calipering blade is in contact with the apex of the connective web joining the bases of the second and third fingers and the use of a light actuating spring for this blade tends to insure such contact. The end of this blade, therefore, forms one member of the caliper, while the adjustable gauging block 7 forms the other member of this caliper when the latter is moved against the tip of the second finger.

It will therefore be seen that each hand can be separately and accurately measured not merely to indicate the size number of the glove, but also the length grading of the glove appropriate to fit a hand that gives the corresponding reading in glove size measurements.

It will also be seen that while provision is made for ascertaining the individual measurements of each hand, the machine is constructed for the simultaneous measurement of both hands. This is advantageous because of the fact that there is very frequently variation in the size-measurements of the two hands of the same person and this fact being disclosed by the simultaneous measurement readings of the respective hands at once informs the salesman of the fact that a glove size should be selected appropriate to the larger of the two hands.

What I claim is:

1. A glove fitting device embracing a pair of opposed width-gauging members, one movable toward the other provided with indicating means for giving glove size readings according to the width of an interposed hand, and a movable finger length-gage slidably mounted to permit movement at substantially right angles to the movement of the first mentioned gauging members and provided with length-indicating symbols to give in correlation with the width-size measurement the proper glove measurement reading appropriate to the hand being measured.

2. In a glove fitting device the combination with a pair of relatively movable finger length-measuring gauges embracing a blade insertable between the fingers longitudinally thereof to contact with the fork of said fingers and provided with marks indicating standard length variations, a coordinated gauge member movable longitudinally of the blade, said gauge member being provided with a width-indicating scale correlated with said length-indicating marks to give glove measurements corresponding to the hand being measured.

3. In a device of the class described the combination of a hand supporting platform, a blade member insertable lengthwise between the fingers of a hand positioned thereon and movable longitudinally thereof, a finger-length calipering gauge member slidably mounted on said blade and provided with a glove size scale whose individual marks are arranged to register with length-size symbols provided on said blade in accordance with the proportionate length of the finger being calipered.

4. A glove fitting machine embracing in its

construction a hand supporting platform, opposed independently movable side gauges for calipering the width of the hand, said side gauges being provided, respectively, with a size indicating pointer, and a glove size scale in coordinated relation, finger calipering means slidably mounted to have calipering movement at right angles to the width gauges and comprising two relatively movable gauge members, one of which forms contact with the hand at the base of the finger being calipered, the other being shiftable along said first-mentioned member into contact with the tip of said finger, one calipering member being provided with a glove size scale and the other with a finger length scale adapted to register one with the other to indicate both the width and the length measurement of the glove appropriate to the hand being measured.

5. The combination with a hand supporting platform, a pair of independently movable side gauges, one of which is provided with a glove size scale, the other of which is provided with a pointer arranged to travel along said scale according to the width of an interposed hand, a finger length caliper embracing a blade insertable between and lengthwise of the fingers of the hand and an independently adjustable tip gauging member, said blade and said tip gauge being provided, respectively, with a finger length scale and with a glove-size scale coordinated to give respectively, finger lengths and glove-size measurements of the hand being measured.

6. A glove fitting device embracing in its construction a support for the hand, a longitudinally movable finger length calipering blade insertable between the fingers of the hand on said support, means for moving said gauge to the limit of inward movement between the fingers, a finger tip gauge slidably mounted at the outer end of said blade and provided with scale marks corre-

sponding to glove width-size indicia correlated with marks on the blade indicating standard length variations to give a complete glove measurement reading corresponding to the width and finger length of said hand, and side calipering gauges coordinated to measure and indicate the glove size of an interposed hand according to its width.

7. In a glove fitting machine the combination with a support for the hand being measured, of a blade insertable between the fingers of said hand and normally moved into contact with the joint between the fingers which it separates, a finger tip gauge slidably mounted at the outer end of said blade and provided with a length indicating scale for giving the length reading proportionate to the size of the hand in coordination with marks on the blade indicating standard length variations, laterally movable side gauging members, a spring for drawing said side gauging members into contact with opposite sides of the hand being measured, said side gauges being provided with a glove size scale and indicator to indicate the glove size number according to the width of the hand.

8. A glove fitting machine embracing in its construction a raised platform provided with laterally disposed flat areas to form supporting surfaces for the palms and the fingers of both hands, a pair of endwise movable positioning blades adapted to lie between the middle fingers of the respective hands, a length-measuring scale and indicator coordinated with each such blade to indicate the finger length in coordination with standard length marks provided on said blade, and means for individually calipering the width of each palm when the hands are positioned for taking the length-measurements.

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