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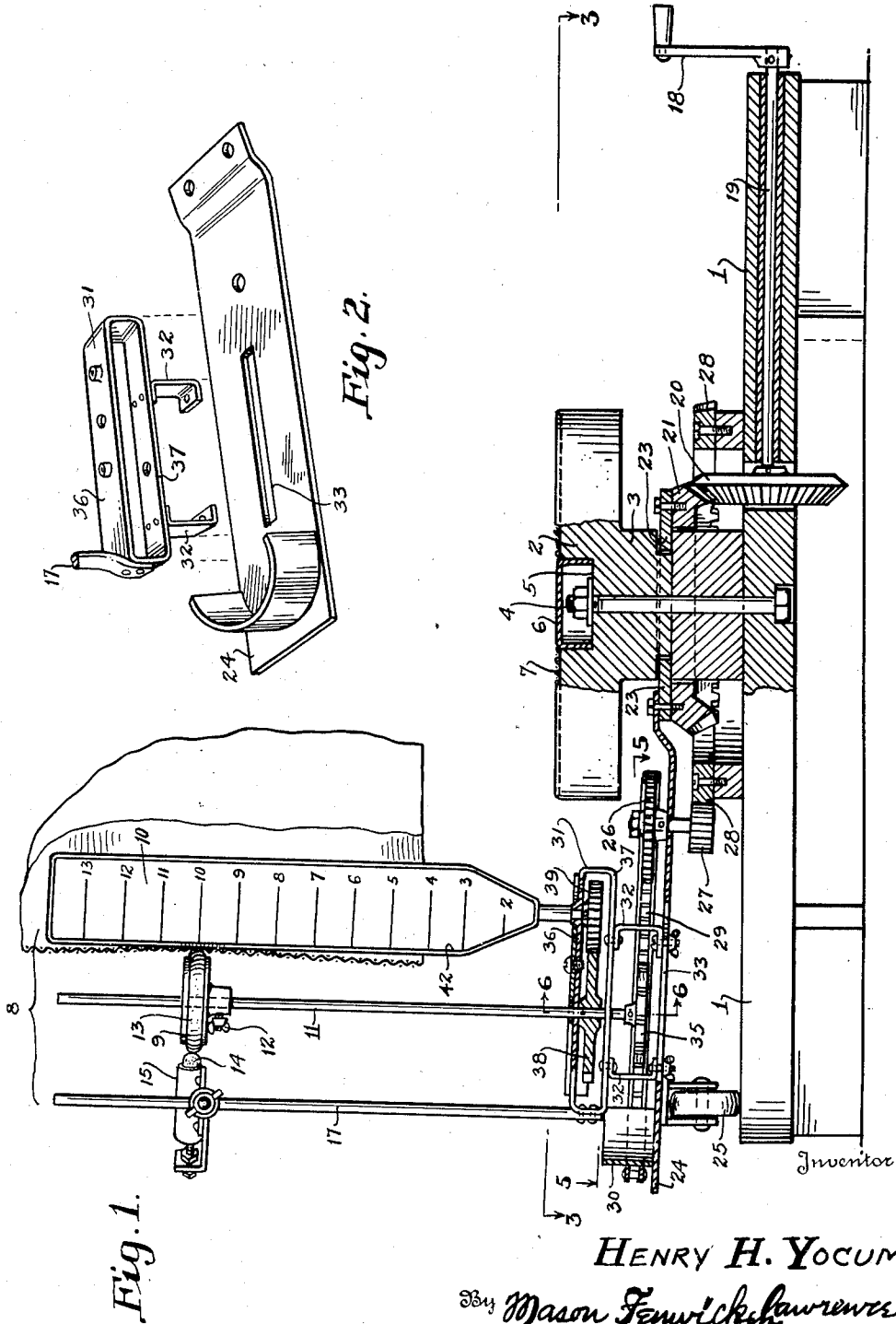
H. H. YOCUM

1,971,516

LENGTH GAUGE AND MARKER FOR DRESSES

Filed March 26, 1934

2 Sheets-Sheet 1



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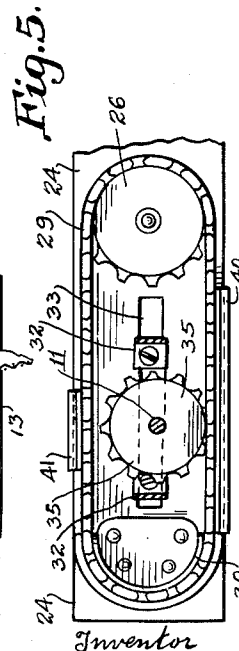
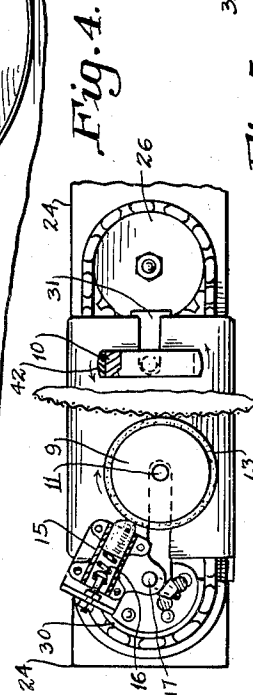
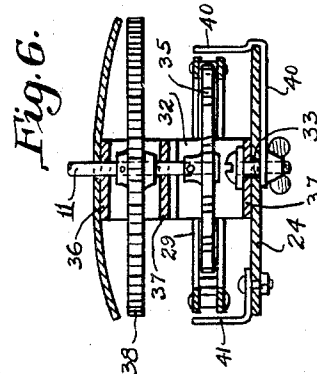
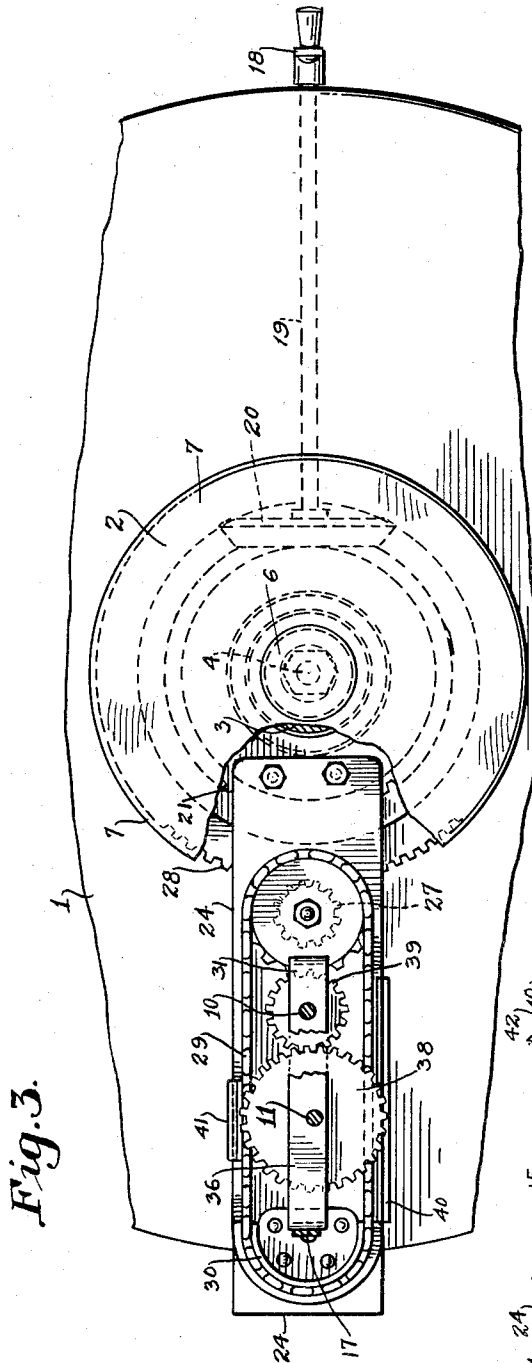
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2 Sheets-Sheet 2



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LENGTH GAUGE AND MARKER FOR DRESSES

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9 Claims. (Cl. 33—10)

This invention relates to dress length measuring and marking devices.

It has for its general object the provision of apparatus which makes a circumferential mark upon a skirt or dress at any desired distance from the plane of the ground while the dress is on the wearer.

The invention is particularly adapted for use in connection with the retail sale of ready-made dresses, although it is of so general a utility as to be advantageously employed in any relation in which dress or skirt lengths are to be altered.

Analogous devices have at one time or another been proposed, but these have uniformly failed in the practical accomplishment of their aims. One of the chief obstacles to the successful operation of such devices as have heretofore been known is that the bottom portion of the skirt or dress is loosely draped, flimsy, full or pleated, and is drawn sideways by the marking device so that the resulting mark is not at a uniform distance from the plane of the ground all around.

The present invention has for one of its objects the avoidance of this drawback by the provision of means for producing an intermittent circumferential mark made up of short dashes during the making of which the skirt or dress is held in relation to the marker and between which dashes the material of the garment is released and permitted to re-assume its position of repose.

A further object of the invention is to provide co-operating rotating means, externally tangent, between which the lower part of the skirt or dress passes, the one means frictionally holding the material at intermittent intervals as described while the other does the marking, the circumferential speed of the holding and marking means being different so that the marking means has a wiping action insuring the imprinting upon the material of a visible mark.

Other objects of the invention relate to structural features concerning themselves with the adjustment of the marking mechanism radially with respect to the longitudinal axis of the garment, the "pitching" of the marking means with respect to the normal divergence of the lower portion of the garment, the shielding of the force transmitting means protecting the skirt or dress from contact or entanglement therewith as the wearer steps upon the platform, the rotary carrier for transferring chalk from a stick of chalk to the material to be marked and other mechanical details presently to be described.

In the drawings which accompany and form a part of the following specification and through-

out the several figures of which the same characters of reference have been employed to designate identical parts:

Figure 1 is a side elevation partly in section of apparatus constructed according to the principle of the present invention;

Figure 2 is a perspective view of the revolving arm showing the adjustable carriage in exploded relation to said arm;

Figure 3 is a fragmentary plan view partly in section and partly broken away taken along the line 3—3 of Figure 1;

Figure 4 is a plan view showing the major portion of the revolving arm and the mechanism carried thereby;

Figure 5 is a section taken along the line 5—5 of Figure 1; and

Figure 6 is a section taken along the line 6—6 of Figure 1.

Referring now in detail to the several figures the numeral 1 represents a stationary base preferably of circular contour and having at its center a fixed elevated platform 2 the latter preferably overhanging a supporting shank 3. These parts may be made separable and connected together by a bolt 4, the nut end of which is shown as being in a countersink 5 and concealed by a cap 6 closing said countersink and terminating flush with the platform. The latter is shown as having a suitable covering 7 which may be made of carpeting or other suitable material or be omitted altogether since it is not of the essence of the invention. The person who tries on a dress or skirt or wishes the length altered steps upon the base 1 and then upon the platform 2 where she stands wearing the dress while the gauge is suitably adjusted and the mark imprinted circumferentially upon the garment.

The gauge as a whole is designated by the reference character 8 and comprises three upstanding members, a shaft carrying a chalking device, in the form of a revolving disk 9, a rotating paddle-shaped member 10 which makes substantial contact with the revolving disk 9 at points in its rotation in which its width dimension is radially aligned with said disk, and a standard 17 carrying a chalk holder 15 for applying chalk to the revolving disk. The horizontal plane embracing the upper face of the platform 2 being regarded as the ground, the paddle member is marked with a scale beginning with the ground plane as a datum and being indexed in inches as shown or in any other desired units of measurement. The disk 9 is adjustably mounted on a shaft 11 and vertical adjustments of said disk with

respect to said shaft are made by shifting the disk up or down while the wing nut 12 is loosened and then tightening the wing nut in the desired position.

5 The person desiring the alteration having stepped upon the platform 2, her dress or skirt is placed between the paddle member 10 and the disk 9. This may be readily done while the paddle member is presenting its broad face to the disk 10, when ample space exists between these elements. If it is desired to have the garment terminate a certain number of inches above the ground plane the disk 9 is preferably set to the right height before the garment is inserted between the disk and paddle member. If however, 15 the proper height from the ground plane is to be ascertained by the trial method the disk 9 is shifted after the material of the garment is in place. The disk 9 is provided with a suitable chalk receptive rim 13 to which powdered chalk is constantly applied during the rotation of the disk from a stick of chalk 14 slidably carried in a socket 15 and pressed against the rim of the disk 9 by a spring 16. The socket 15 is adjustably 20 mounted on an upstanding rod 17 and after the disk 9 has been suitably allocated the socket is moved to a position in which the stick of chalk 14 contacts the rim 13 of the disk 9.

The revoluble movement of the gauge 8 circumferentially around the skirt or dress is imparted by means of a crank 18 or its equivalent connected to a horizontal shaft 19 mounted in a suitable bore in the base 1. At its inner end and preferably beneath the platform 2 so as to be in a position of concealment is a bevel gear 20 which 35 meshes with a gear 21 revolving in a channel 22 in the shank 3 of the platform 2. Figure 1 shows that the gear 21 is secured to an annular disk 23, the latter playing in the channel 22, but this specific construction is not to be regarded as more than a model maker's expedient, and it is to be understood that any manner of mounting the gear 21 is within the purview of the invention. An arm 24 is suitably secured to the gear 21 and 45 revolves therewith the arm extending beyond the platform 2 and carrying the gauge mechanism. The outer portion of said arm is preferably supported by a caster 25 resting upon the base 1 and the height of the caster 25 is such that the arm 24 cants upwardly in the direction of its outer end giving the shaft 11 and the axis of the paddle member 10 a pitch which places them substantially parallel to the flare of the garment being 50 marked.

Rotary motion is imparted to the paddle member 10 and the marking disc 9 through a sprocket 26 fixed to a shaft which passes through the arm 24 and carries at its lower end a planet wheel 27 meshing with an orbit gear 28 fixed to the base 1. As the arm 24 revolves the planet wheel 27 necessarily rolls around the ring gear 28 imparting rotation to the sprocket 26. The latter engages an endless chain 29 which at the forward end of the arm 24 passes around a curved guide plate 30. 65 The shaft 11 is mounted in a carriage 31, see Figure 2, which is longitudinally adjustable with respect to the arm 24 by means of lugs 32 carrying bolts which pass through a slot 33 in said arm and which bolts carry wing nuts 34 by means of which the lugs 32 can be clamped against the arm 24 in any desired longitudinal position of adjustment of the carriage 31. The lower end of the shaft 11 carries a gear 35 meshing with the chain 29 as clearly shown in Figure 5 and through which 75 means rotation is imparted to the shaft 11. When

the carriage 31 is longitudinally adjusted the gear 35 simply rolls along the chain to the required distance.

The carriage 31 is preferably composed of upper and lower frame members 36 and 37 between which are carried two intermeshing gears one, the gear 38, being fixed to the shaft 11 and driven through the rotation of the shaft and the other, 39 being fixed to the lower end of the paddle member 10. Thus the paddle member is driven through the gear 38 at the lower portion of the shaft 11. 80 85

A flanged member 40 is detachably secured to the arm 24 as shown in Figure 6, the flange of which member limits the lateral movement of the chain 29 and keeps it in engagement with the teeth of the gear 35 which drives the shaft 11. A similar but somewhat shorter member 41 holds the opposite side of the chain within the boundary of the width of the arm 24. Thus the chain is prevented from extending to a position in which it might come in contact with the garment and soil or tear it. 90 95

In operation, the crank 18 is preferably down when the person wearing the garment to be marked for alteration steps upon the base 1 and upon the platform 2, the crank in this position presenting no risk of catching upon the dress regardless of its length. The lower portion of the skirt or dress is then placed between the disk 9 and the paddle member in the manner hereinbefore explained and the disk 9 and the chalk carrying socket fixed in the desired height position. The operator then turns the crank causing the arm 24 to rotate about the platform to carry with it the gauge elements. The shaft 11 bearing the disk 9 and the paddle member 10 rotate simultaneously with the revolving of the arm, the paddle member pressing the material of the dress intermittently into contact with the rim 13 of the disk 9 and then releasing this contact. The edges of the paddle member are preferably faced with a layer of rubber 42 so that when the edges of the paddle member are in positions of approach to the disk 9 they take positive hold of the dress material and carry it through a small arc before releasing it. While the material is thus being translated by the rubber edge of the paddle member, it is wiped by the rim 13 of the disk 9 which as has been stated is kept chalked by contact with the stick of chalk 14. The wiping action of the disk 9 against the material is further assured by the making of the meshing gears 38 and 39 of different diameters so that the disk 9 and the paddle member travel at different speeds. It is practically impossible to produce a visible chalk mark on textile fabrics by merely pressing a chaiked surface against said fabric, but a thoroughly visible mark is imprinted upon the material through the wiping action. 100 105 110 115 120 125 130 135 140 145 150

Just as soon as the rubber faced edge of the paddle member 10 has released its hold upon the material in the course of the rotation of the paddle member, the material which may have been pulled slightly away from its repose position by the friction of the paddle member is released so that it re-assumes its position of repose. Regardless therefore of how full or how scant may be the cut of the garment, it is not dragged out of place by the contact of the marking device to the extent that an irregular or spurious line is imprinted upon it, but through the intermediary of the broken line comprising a series of dashes wipingly applied and alter- 155

nating with a series of blank spaces representing release periods of the garment in the operation of the gauge, a regular line of uniform height above the ground plane is obtained.

5 If the garment possesses but little fullness an adjustment of the carriage 31 toward the platform 2 is indicated. If, on the other hand, the garment is very full the carriage 31 may be adjusted closer to the end of the arm 24. The
10 pitch of the axes of the shafts 11 and the paddle member 10 in a direction substantially parallel to the flare of the skirt or dress maintains the material in straight condition and prevents wrinkling which might occur if the direction of
15 the axis of the shaft 11 and paddle member conflicted with the direction of flare of the garment.

While I have in the above description disclosed what I believe to be a preferred and practical
20 embodiment of the invention, it is to be understood that the specific structure as shown and described is merely by way of example and not to be construed as limiting the scope of the invention as defined in the appended claims.

23 What I claim is:

1. Revolvable length gauge and marker for dresses comprising a fixed pedestal for a person wearing the dress to be marked for alteration,
30 an arm revoluble thereabout, and rotatable gauge members carried by said arm adapted to receive between them the lower part of the fabric of the garment, one member being adjustable in a height direction relative to the other, one member being flattened and making contact with the
35 other through the intermediary of the fabric, when its width dimension is substantially radial with respect to the axis of the other member, but moving out of contact with said other member in other phases of its rotation, the adjustable
40 member being a marker.

2. Revolvable length gauge and marker for dresses comprising a fixed pedestal for a person wearing the dress to be marked for alteration,
45 an arm revoluble thereabout, and rotatable gauge members carried by said arm adapted to receive between them the lower part of the fabric of the garment, one member being adjustable in a height direction relative to the other, one member being flattened and making contact with the
50 other through the intermediary of the fabric, when its width dimension is substantially radial with respect to the axis of the other member, but moving out of contact with said other member in other phases of its rotation, the adjustable
55 member being a marker, and the flattened member having a scale to which the adjustment of the co-operating element is referred.

3. Revolvable length gauge and marker for dresses comprising a fixed pedestal for a person wearing the dress to be marked for alteration, an arm revoluble thereabout, a carriage adjustable longitudinally of said arm and carried thereby, rotatable gauge members mounted on said carriage adapted to receive between them the lower part
65 of the fabric of the garment, one member being adjustable in a height direction relative to the other, one member being flattened and making contact with the other through the intermediary of said fabric when its width dimension is substantially radial with respect to the axis of the other member, but moving out of contact with said other member in other phases of its rotation, the adjustable member being a marker, means
75 for revolving said arm and means operating

through the revolution of said arm for rotating said gauge members.

4. Revolvable length gauge and marker for dresses comprising a fixed pedestal for a person wearing the dress to be marked for alteration, an arm revoluble thereabout, a carriage adjustable longitudinally of said arm and carried thereby, rotatable gauge members mounted on said carriage adapted to receive between them the lower part of the fabric of the garment, one member being adjustable in a height direction relative to the other, one member being flattened and making contact with the other through the intermediary of said fabric when its width dimension is substantially radial with respect to the axis of the other member, but moving out of contact with said other member in other phases of its rotation, the adjustable member being a marker, means for revolving said arm and means operating through the revolution of said arm for rotating said gauge members at differential speed, whereby said marker is given a wiping action against said fabric.

5. Revolvable length gauge and marker for dresses comprising a fixed pedestal for a person wearing the dress to be marked for alteration, an arm revoluble thereabout, a carriage adjustable longitudinally of said arm and carried thereby, a rotatable shaft mounted in said carriage, a marking disk adjustable longitudinally upon said shaft and rotated thereby, a co-operating gauge member rotatably mounted in said carriage, said gauge member being flattened and making contact with said disk through the intermediary of said fabric when its width dimension is substantially radial with respect to the axis of said disk, but moving out of contact with said disk in other phases of its revolution, means for supplying a marking agent to the rim of said disk, means for revolving said arm and means operating through the revolution of said arm for rotating said shaft and said flattened gauge member.

6. Revolvable length gauge and marker for dresses as claimed in claim 5, the flattened member having its edges faced with a friction augmenting element whereby the fabric of said garment is held when said flattened member is in contactual relation to said disk, said disk and flattened member being driven at differential speed whereby the rim of said disk is given a wiping action against said fabric during the contact phase of said flattened member.

7. Revolvable length gauge and marker for dresses as claimed in claim 5, the means for supplying marking agent to the rim of said disk comprising a socket adapted to hold a piece of chalk and a spring for pressing said chalk against the rim of said disk, and the flattened member having its edges faced with a frictional augmenting element whereby the fabric of the garment is held when said flattened member is in contactual arrangement with said disk, said disk and flattened member being driven at a differential speed whereby the rim of said disk is given a wiping action against said fabric during the contact phase of said flattened member.

8. Revolvable length gauge and marker for dresses as claimed in claim 5, said shaft and the axis of said co-operating gauge member being pitched in the direction of the flare of said garment.

9. Revolvable length gauge and marker for dresses comprising a base, a fixed pedestal of smaller plan dimension than said base adapted as a stand for a person wearing the dress to be

marked for alteration, a gear beneath said pedestal, an arm fixed with respect to said gear revoluble above said base and about said pedestal, a carriage adjustable longitudinally of said arm and carried thereby, a rotatable shaft mounted in said carriage, a marking disk adjustable longitudinally upon said shaft and rotated thereby, a cooperating gauge member rotatably mounted in said carriage, said gauge member being flattened and making contact with said disk through the intermediary of said fabric, when its width dimension is substantially radial with respect to the axis of said disk, but moving out of contact with said disk in other phases of its revolution, an upright on said carriage parallel to said shaft, a chalk holder slidably adjustable on said upright, said chalk holder including a chalk receiving socket and a spring for pressing a stick of chalk against the rim of said disk, a ring gear beneath said pedestal, a planet gear on said arm meshing with said ring gear and rotated thereby when said arm is revolved, intermeshing gears driving said marking disk and said flattened member operatively connected to said planet gear, and means for driving the gear with respect to which said arm is fixed.

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