Aug. 27, 1946. F. R. GRAND-JEAN 2,406,495

DEVICE FOR SELECTION OF ARTICLES OF WEARING APPAREL

Filed Dec. 1, 1944

FIG. 1.

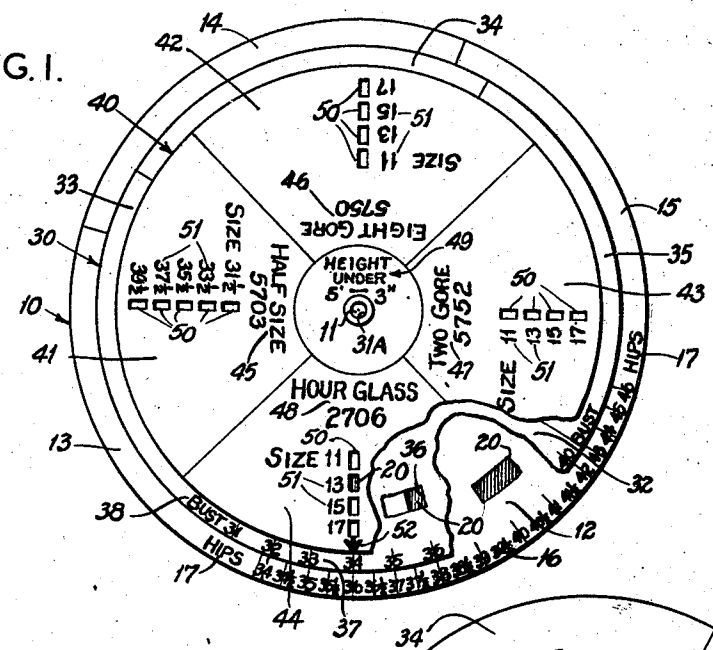


FIG. 2.

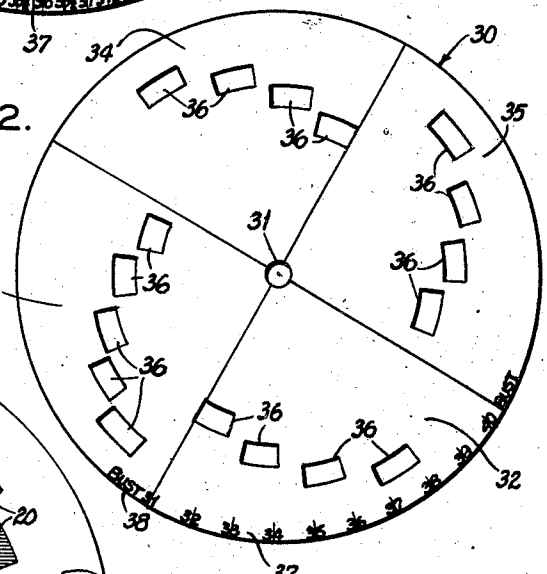
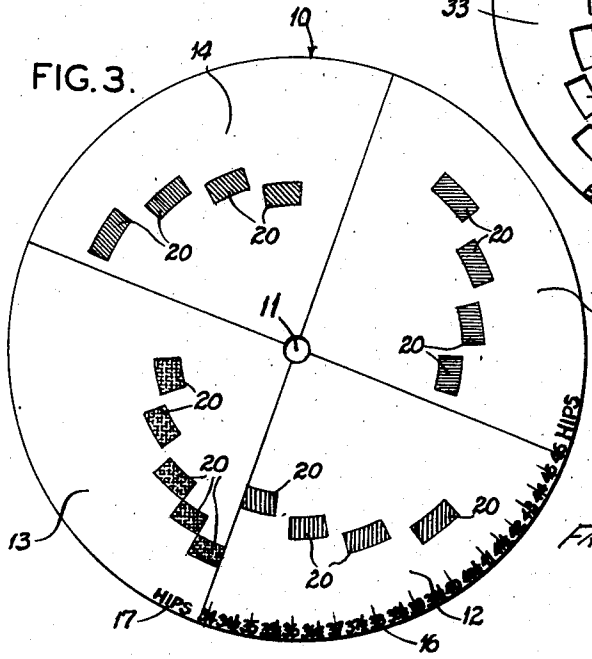


FIG. 3.



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DEVICE FOR SELECTION OF ARTICLES OF WEARING APPAREL

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6 Claims. (Cl. 35—56)

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This invention relates to improvements in devices for selection of articles of wearing apparel, and more particularly to merchandise selectors for garments or other articles of wearing apparel produced and stocked in a variety of measurements, types, models, styles and perhaps of other varying characteristics. The device is particularly, although by no means exclusively, designed to facilitate the correct selection of items of women's wear such as lingerie.

In order to assure, or at least enable an optimum selection of garments from an extensive stock, whether a manufacturer's stock or at retail, there are provided not only a substantial number of styles and types of lingerie and other garments, but there is also noted a tendency among more progressive manufacturers to attain an increasing perfection of fit and adaptability of garments to out-size or small size figures, or figures of unusual and abnormal proportions. It is nevertheless realized in manufacturing and merchandising circles, that this increasing specialization and individualization of garments introduces, by reason of a much greater number of stock items, an increasing likelihood of error in customer's selection. This is particularly true in the case of inexperienced or inadequately trained retail sales persons, and, even in the case of experienced personnel, the added complication of proper selection and fitting of garments has heretofore required first, a thorough knowledge of the stock and types of individuals to be fitted, and secondly, a quick and heretofore sometimes difficult mental process on the part of the sales person, in order to arrive at the optimum combination of at least three variables in an item of lingerie, viz., height of wearer, hip and bust measurement. The present invention accordingly has as its general and primary objective the attainment of a simplified low-cost device which will largely eliminate the high degree of personal equation heretofore involved in the correct selection of an optimum item of wearing apparel for an individual purchaser or user.

A further and important object of the invention is attained in a simple, compact, easily manipulatable article for the general purpose aforesaid, and which by one or two simple operations instantly visually indicates any one of a number of styles, if more than one, and of a stock number, size, or other designation which practically assures against error on the part of sales persons and others identified with garment selection and fitting, particularly in the women's apparel fields.

Yet another object of the invention is attained in a calculator or determining device of the general type and for the general purpose noted, which is of novel form, and which is so quickly operable and free of possibilities of personal error, as very materially to reduce the time of clerks and others

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presently required in selection of an article of wearing apparel in order best to suit customer requirements.

An additional and important objective is attained, by reason of a relative certainty of fit, in an assurance of satisfaction of the selected garment; in a reduction of number of merchandise returns, increase in number of sales possible by each sales person in a given unit of time, and increased customer satisfaction by obviating uncertainty and vacillation on the customer's part.

The foregoing and numerous other objects will more clearly appear from the following detailed description of a single, exemplary, preferred embodiment of the invention, and a consideration of the description in connection with the accompanying drawing, in which:

Fig. 1 is an assembly of the device, viewed in plan, with portions of an upper and an intermediate disc broken away for clearness of understanding;

Fig. 2 is a plan view of an intermediate disc, and Fig. 3 a corresponding view of a base or lower disc, the discs of Figs. 2 and 3 being shown in corresponding relative positions.

Referring now by characters of reference to the drawing, the device, as shown, but with possibilities of variation in number and arrangement of its elements, includes a base or bottom disc element, generally indicated at 10. Shown as of circular form, the base is provided with a fixed center pin or the like 11, identified with an axis of rotation and, in the form shown, also an axis of structure. In this example, provision is made for selection of a garment, according to size and customer measurements, of any of four styles, models, numbers, types or other desired basis of grouping. Accordingly the area of the base 10 is divided into four equal aliquot areas or sectors 12, 13, 14 and 15.

Along one of the arcuate margins of the base disc 10 is a series of equiangularly related graduations 16, accompanied by a designation 17 which, in the present case, consists of the word "hips," or other wording to identify the dimensions or measurement signified by the graduations 16. These latter in the present example cover a range of sizes, within the sector 12, of 34 to 46 inclusive.

In each of the sectors 12, 13, 14 and 15, is provided, for a purpose later appearing, a series of target areas or indicia of suitable or desirable form, each area shown as being approximately rectangular, being indicated at 20. It will be noted that, by preference, proceeding in a given direction across each of the base sectors, the areas 20 are displaced, each from the preceding area, both in an angular and in a radial direction. Otherwise expressed, these predetermined areas are displaced in one direction of relative movement of the superposed planar elements such as

the several discs later to be described, this being in a direction about or along the element, as well as being displaced radially of the discs. This exact arrangement, or pattern of areas, will be dictated somewhat by the number of aliquot divisions of the base disc, and possibly other of the relatively displaceable elements of the selector. Generally speaking, however, a stepped arrangement as shown, is preferred, and in practice it is also preferred to impart to the target areas **20**, a bright color which may be different in the different sectors, for example, red, yellow, green and blue, so as to enable the target areas or portions thereof to be more readily visible for indicating purposes, as will hereinafter better appear. It should be noted as by no means essential that the number of areas **20** be the same in the several base quadrants; for example, one quadrant contains five of the areas **20**, the other four each.

Proceeding now to a description of a planar element which is preferably displaceably disposed immediately in adjacence to the base **10**, a preferred form of such element is generally indicated at **30**, and is shown in the form of a circular disc whose center or axis **31** is coincident with the mounting pin or pivot element **11**, hereafter referred to, and may be mounted thereon.

It is a preference for best and most complete results for the particular intended purpose of the present design, to provide for the accumulation in the selector, of say three size variables or dimensions, for example, the height of the wearer, which obviously is reflected in differences in length of the garment selected, also hip measurements and bust measurements. To this end, three superposed preferably planar and relatively movable elements are employed, together with some means such as the pivot **11** of the present example, for constraining these elements to a fixed path of movement. It will be noted however, that for certain purposes wherein no more than two variables need be taken into account, as in the shoe trade for example, wherein the principal dimensions of account are length (or shoe size) and last or width, a two-element arrangement may prove sufficient; however, in the present arrangement of three superposed elements, it is preferred to form the discs of decreasing diameter from bottom to top. The exact extent of diminution of diameters or areas is not critical, but for easy visibilty, it is preferred to provide say at least a one-fourth to three eighths inch margin on the base disc, beyond the perimeter of the intermediate disc, and also to provide for the same difference between the intermediate and uppermost or top element.

The intermediate disc **30** of the present example similarly to the bottom disc or base, is provided with an axial aperture **31**, and is divided into four aliquot parts, otherwise designated as quadrants **32**, **33**, **34** and **35**. Since in the base disc, each of the quadrants is characterized by the same general arrangement of indicia **20** and the same pattern or a substantially similar pattern in each of the quadrants, the intermediate disc **30** is also provided in each quadrant with a pattern shown as consisting of four, and in one quadrant, five stepped rectangular apertures or windows **36**. The general arrangement, pattern and areas of the windows **36** corresponds broadly to the pattern and areas of the indicia-bearing portions **20** of base plate **10**. The provision of an angularly related series of graduations, generally indicated at **37** extends, in at least one

quadrant of the present example, through the inclusive range of **31** to **40**, and is accompanied by a suitable legend or marking **38**, giving significance, as of size, to the row of graduations **37**.

Proceeding now to a description of the uppermost or top disc, this is, as noted, of somewhat smaller diameter than the intermediate disc **30**, and is generally indicated at **40**, being provided with a central aperture **31A**, and is divided into four equal aliquot parts or in the circular form shown, into quadrants **41**, **42**, **43** and **44**. Each of the several individual quadrants of disc **40** is significant of a particular style, type, model or other broad grouping of the generally similar items of stock for a common purpose, for example, slips or other items of lingerie. These identifying indicia are indicated at **45**, **46**, **47** and **48**, and the disc further bears, as applicable either to the top disc **40** or to the whole selector assembly, indicia of applicability for and significance in connection with height of wearer. For example, the indicia "under 5′ 3′′" as pointed out by the numeral **49**, is of importance in connection with other size indicia later to be described, and is obviously of significance in selection of length of garment.

Each of the quadrants **41**, **42**, **43** and **44** of the uppermost disc is provided intermediate its boundaries with a linear and radial row of slightly spaced, narrow, radially elongate windows, ports or apertures **50**, opposite each of which is an identifying garment size number, these being collectively referred to by reference character **51**. A further and important indicating feature presently identified with the uppermost disc, is exemplified by the indexing arrow **52**. Any other similar indexing expedient may be employed, for example a projection on or notch in the material of the disc **40**.

Since the upper or topmost disc, in the present example, is divided into four equal aliquot areas or quadrants for the purpose of denoting four particular styles of stock garments, the intermediate and base discs are also divided into corresponding areas or quadrants such that apertures formed in and indicia carried on the latter discs respectively may be arranged in a predetermined pattern within each quadrant to cooperate with the indicia on the upper disc for the purpose of indicating which style of stock garment and size within that stock will provide the best fit. Thus the quadrants delineated on the base disc serve to define areas within which indicia must be located in order to render the selector device fully useful. In the case of the intermediate disc the several patterns of apertures formed therein must be located in the quadrant areas appearing thereon in a manner to cooperate with the indicia on the bas disc and likewise with the patterns of apertures and applicable indicia appearing on the upper disc. It should be observed that the number of aliquot areas delineated on each of the discs may be increased from that shown to provide for a wider selection of garments or the divisions may be decreased if such is desirable.

The device may be constructed in a variety of ways without departing from the general underlying principles thereof, and is by preference formed of a stacked series of planar elements suitably imprinted or lithographed. These elements may be of paper, cardboard, sheet plastic, metal or combinations of such materials; furthermore, it should be noted that the occasional use herein of terminology such as "upper" and

"lower" is not to be understood as limiting the device to any particular position of use or display, since obviously its function is independent of the position of its axis element 11, or other means constraining the relatively movable elements to substantially a common path of movement. This terminology is accordingly employed only for brevity and convenience of description but without limitation.

The manner and usage of the selector assembly when employed in connection with articles of wearing apparel, is thought now to have become obvious from the foregoing detailed description of its parts and combinations, but it may for completeness be indicated as usual practice for the sales person to ascertain the height of the wearer of the garment to be selected. An appropriate selector assembly is then employed, as determined by the indicia of height significance pointed out by numeral 49. Hip size and bust size are taken by measurement and recommendation given, according to type of figure and other personal factors, as to which of the plurality of available styles or types of garment is best adapted for the customer. In the present example this selection will be effected from one of the four appropriate indicia 45, 46, 47 and 48.

The selector is now ready for manipulation, involving only two relative placements of the discs. The first of these consists in a superposition of the now-determined bust size, and hip size, each as read on the margins, respectively, of the intermediate and base disc, in the rows of graduations 37 and 16. For example, with a bust measurement of 34 and a hip measurement of 36, the index line corresponding to bust figure 34 will be brought in alignment or register with the hip measurement graduation 36. The two lowermost discs now being relatively positioned, the uppermost disc is partially rotated to bring its index mark, such as arrow 52, also in alignment or register with the two graduation lines above referred to. There will then immediately be visually indicated, for example, if the underlying target areas 20 of disc 16 be bright red in color, a flash appearance of red color through at least one of the apertures or windows 50 of the uppermost disc. There may be coincidentally, an appearance of other areas 20 of the base disc, through one or perhaps more than one of the windows 50 in other of the quadrants of the upper disc 40, and if desired, and as noted, different groups of the target areas 20 of the base disc in the several quadrants may be provided with different colors or other indicia, in the interest of obviating error. In any event, with the three discs now set as noted, there is now accumulated in the selector the three size variables heretofore noted, namely, wearer height, (or length of garment), bust size and hip size.

The result attained will become obvious without detailed description of underlying reasons, it being apparent that by reason of the stepped arrangement of areas 20 and the stepped arrangement of windows 36, there will usually appear at least one, sometimes more than one, of the areas through the windows of intermediate disc 30. However, because of the restricted width and linear arrangement of apertures 50 in disc 40, and the stepped arrangement of windows 36 in disc 30, and due further to the particular patterns of windows 36 and areas 20, there will never, in the design shown, be such a registration of apertures 50 and 36 as to display the target color or indicia of areas 20 through more than one of the windows 50 in any given quadrant of the upper disc.

It should be noted as entirely feasible and within present contemplation, that, in case, for example, there is only a single style, number or model of garment from which selection is to be effected, a group of three selected quadrants of the assembly could of themselves be employed, for example, quadrant 12 of the base disc, 32 of the intermediate disc and 44 of the top disc. Accordingly, the use of the term "disc" is intended in a broad sense and not as particularly limiting the relatively movable elements to a full circular or other specific form.

It is well known in certain types of calculator devices, for example, in slide rules characterized by either logarithmic or arithmetic graduations, that the same principles of indication and setting may be employed whether the slide rule be of linear or circular construction and arrangement. Obviously also, the principles of the present selector may, in a manner which will now have become obvious, be embodied in a device in which the elements are of elongate rectangular form and are linearly displaceable, all within the intended scope hereof.

Although the invention has been described by making detailed reference to a single preferred embodiment thereof, the detail of description is to be understood solely in the sense that it is instructive of the practice of the invention, rather than in any limiting sense, because of the many variants possible within the full intended scope and spirit of the claims hereunto appended.

I claim as my invention:

1. A device for aid in selecting a lady's garment from a stock of varying sizes and styles, the device including three superposed planar elements, two of which are relatively displaceable and individually displaceable with respect to the third or base element, the base and one other element each having a row of graduations arranged for selective register upon relative displacement thereof, one such row being a range of hip sizes and the other, a range of bust sizes, the elements other than the base each having a plurality of apertures, said apertures being arranged in dissimilar patterns on the respective elements for selective register when the apertured elements are displaced, one such pattern of apertures consisting of a stepped arrangement in which the apertures of the pattern are progressively displaced in two directions, a dissimilar cooperating pattern of apertures on an adjacent element being a linear arrangement, with the line of apertures extending across the path of movement of the element in which they are formed, the base element having a plurality of items of indicia so arranged in a pattern as to cooperate with and be selectively visible through the registered apertures of the other elements in accordance with the selected register of said rows of graduations for predetermined hip and bust sizes, and further indicia on one of the apertured elements including means selectively coacting with the selected register of the rows of graduations to predetermine hip and bust sizes for selectively determining the visibility of an item of indicia on the base element, to designate a stock garment of optimum size and style.

2. A device for aid in selecting a garment from a stock of varying sizes and styles, including three superposed circular discs, two of which are relatively rotatable and each rotatable with respect to a third or base disc, the base disc and one other having angular graduations denoting size variables and arranged for selective register, and said

other having apertures arranged in angularly and radially displaced relation for selective register with the apertures in the other disc, the remaining disc having a radial row of apertures, the base disc having a plurality of separate indicia arranged in a pattern to cooperate with and be selectively visible through the selectively registrable apertures of the other discs, and further indicia on the uppermost disc including means arranged in cooperating relation with the selected register of the angular graduations on the base disc and one other disc for determining the selected relative rotation thereof and visibility of base disc indicium to designate optimum size and style of garment.

3. In a device for selecting an article of lingerie from a stock thereof, to assure optimum style and fit, three superposed rotatable circular discs, a row of angularly related graduations indicating a range of hip measurements on the lowermost or base disc, said base disc having a plurality of patterns of indicia thereon, the indicia in each pattern being arranged in stepped relation, a row of angularly related graduations on the intermediate disc, indicating a range of bust measurements, said rows being in physical adjacence to enable juxtaposition of graduations indicating applicable bust and hip measurements, a plurality of patterns of apertures in the intermediate disc, each pattern being a stepped arrangement of apertures, a corresponding plurality of patterns of apertures arranged in radial rows being provided in the upper disc for cooperative and selective register with apertures in the intermediate disc, the upper disc being provided, with style indicia for each pattern of apertures and separate size indicia adjacent each aperture of the radial row, the three discs being pivotally mounted on a common axis, and being graduated in diameter from bottom to top, whereby to render marginal portions of each disc visible and accessible at all times, and other indicia on the upper disc for selective register with the juxtapositionment of graduations on the base and intermediate discs in accordance with hip and bust measurements for determining the relative rotation of said discs, rotation thereof serving to bring indicia on the base disc into view through registered apertures in the intermediate and upper discs to designate optimum style and fit of an article of lingerie.

4. In a device for selecting an article of lingerie from a stock thereof to assure optimum style and personal fit, three superposed relatively rotatable discs, a row of angularly related graduations on the lowermost or base disc, indicating a range of hip measurements, a similar row of angularly related graduations on the intermediate disc, indicative of bust measurements, the graduations including index lines such that one or more lines of the two said rows are adapted to be brought into register, said rows being in physical adjacence to enable through rotation of the discs, an alignment of graduations corresponding to predetermined hip and bust measurements, the uppermost disc being provided with indexing indicia adapted to be brought to register with predetermined registering graduations of the respective rows thereof, a stepped arrangement of indicia on the base disc, a stepped arrangement of apertures being provided on the intermediate disc, and a radial row of apertures being provided in the upper disc, with separate size indicia adjacent each aperture of said radial row, the upper disc being further provided with indicia significant of style, model or type of article and of a range of heights

to include that of the customer for whom selection is to be effected, the relative rotation of each disc, to relate the respective rows of graduations and indexing indicia for predetermined registration, being effective to bring an indicia on the base disc into visible range within registering apertures in the upper and intermediate discs to designate optimum style and personal fit.

5. The combination and arrangement of the elements and features as recited by claim 4 but further characterized in the division of the areas of the several discs into the same number of aliquot parts, the corresponding aliquot parts of the several discs being cooperative in reference to a predetermined style, model or type of article of apparel, and in which differing indicia are employed in the several aliquot divisions of the base disc area.

6. In a device for aid in selecting an article of wearing apparel from a stock thereof to assure optimum style and personal fit, three superposed, relatively rotatable concentric discs of substantially circular form and of progressively decreased diameter, whereby to render at least a marginal portion of each of the discs visible and accessible for manipulation at all times, a row of angularly related graduations on the lowermost or base disc, indicia adjacent the graduations to indicate a range of hip measurements, a similar row of angularly related graduations on the intermediate disc and indicia adjacent said graduations to render them indicative of bust measurements, the graduations including index lines such that one or more lines of the two said rows are adapted to be brought into register, the rows of graduations being movable into physical adjacence to enable through rotation of the discs, an alignment of graduations corresponding to predetermined hip and bust measurements, a plurality of patterns of indicia on the base disc, those indicia of each said pattern being in a stepped formation but with certain of the patterns differing in relative disposition and arrangement from others on the base disc, a plurality of patterns of apertures being provided in the intermediate disc, each of said patterns being in the nature of a stepped relation of such apertures, and the several patterns on the intermediate disc differing in the relation of apertures to each other in the same pattern, a plurality of patterns of apertures being provided in the upper disc and arranged in radial rows, the apertures of the radial rows being substantially uniformly spaced radially of the disc, and the apertures in the upper disc being of substantially lesser area than those of the intermediate disc, there being provided separate size indicia adjacent each aperture of each of said radial rows on the upper disc, the spacing in angular and radial directions of the base disc patterns and the arrangement and areas of the apertures in the intermediate disc being of such structural arrangement that the base areas are selectively visible through one or a small plurality of the apertures in the upper disc, and indexing indicia on the upper disc arranged for cooperative registration with the predetermined alignment of graduations on the base and intermediate discs to indicate the desired relative rotational arrangement of said discs and thereby determine a selection of wearing apparel in accordance with the size indicia adjacent the apertures in the upper disc as denoted by the selectively visible base area.

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