R. RUBIN.

DRESS FORM.

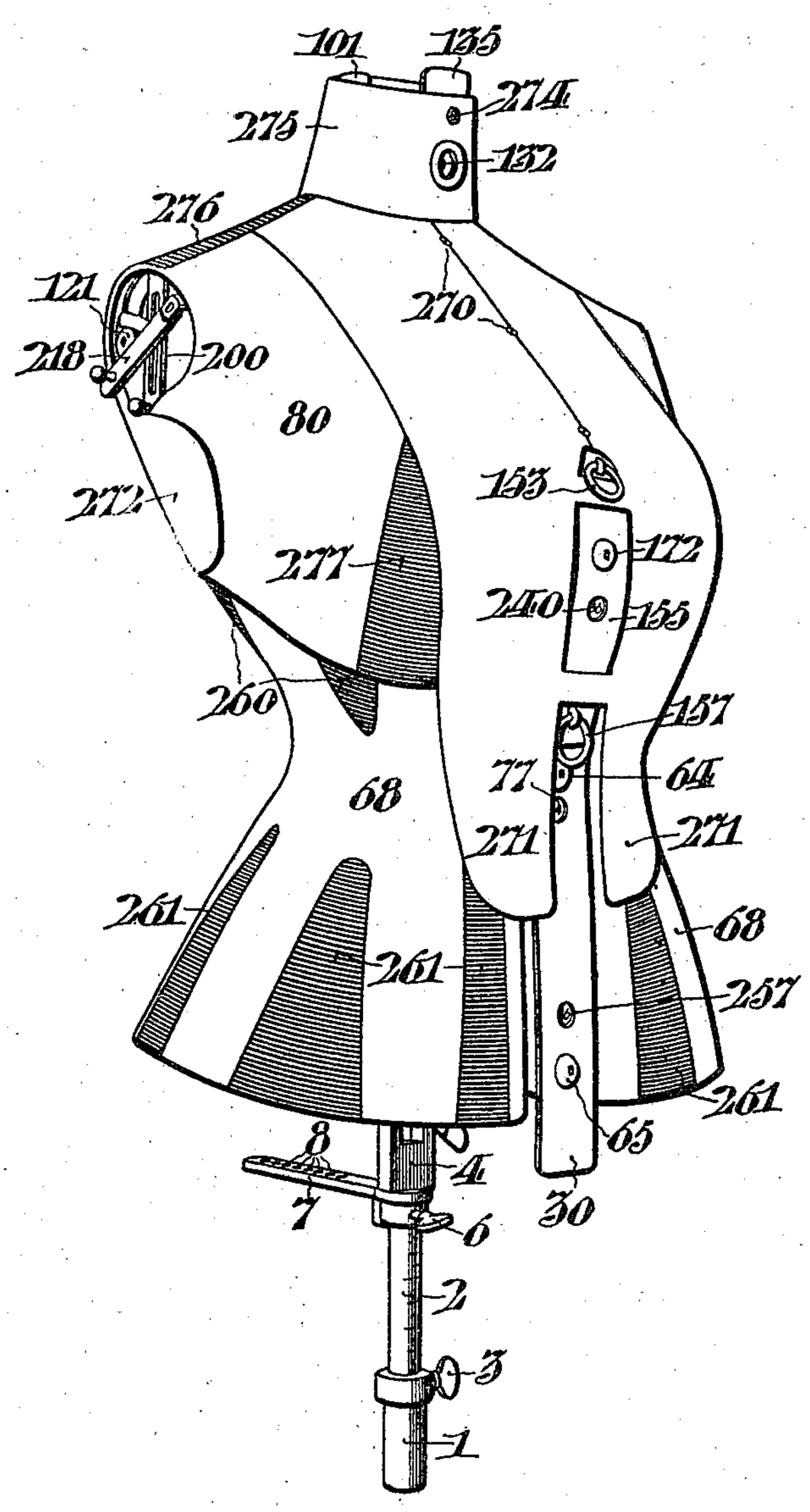
APPLICATION FILED DEC. 29, 1908.

963,724.

Patented July 5, 1910.

6 SHEETS—SHEET 1.

FIG. I.



WITNESSES:

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James G. Bell

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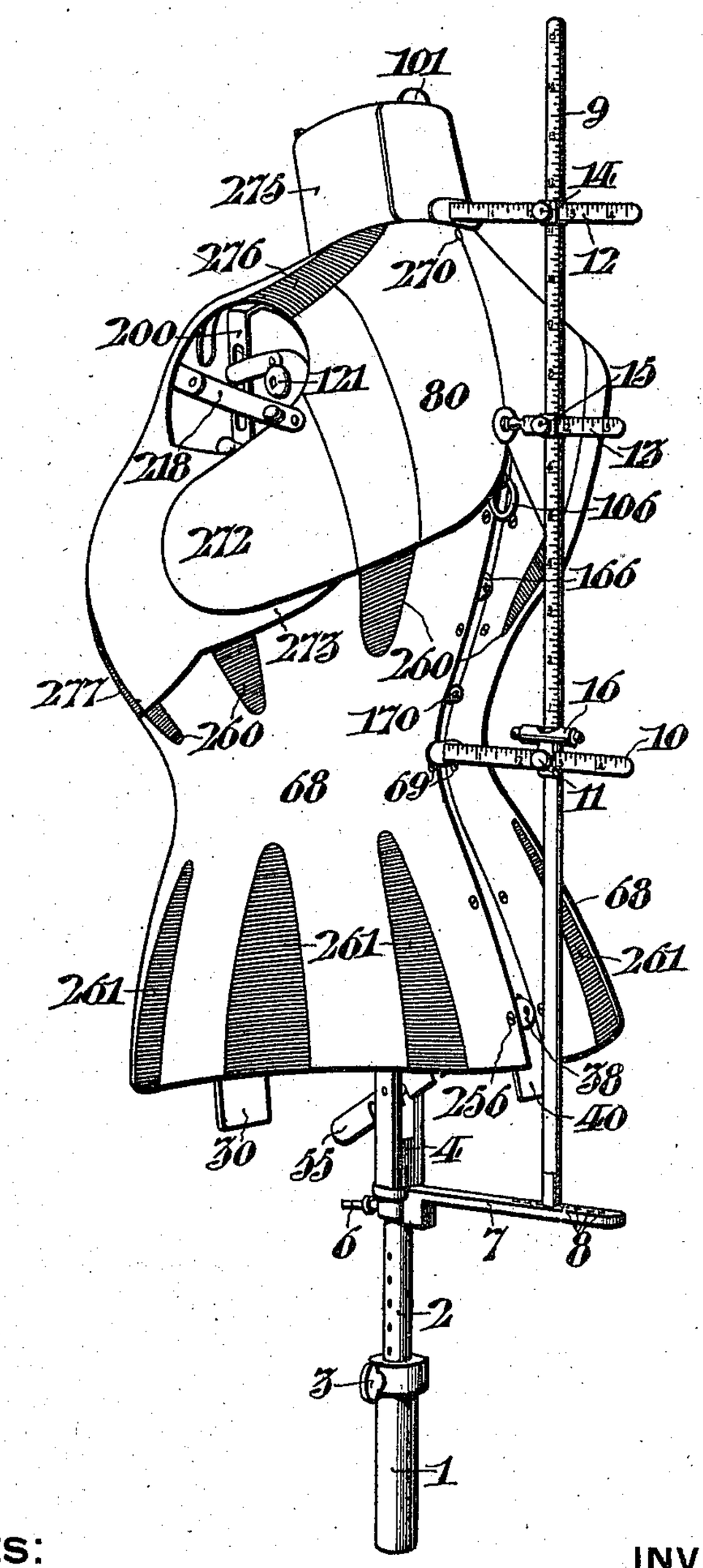
6 SHEETS—SHEET 2.

FIG. II.



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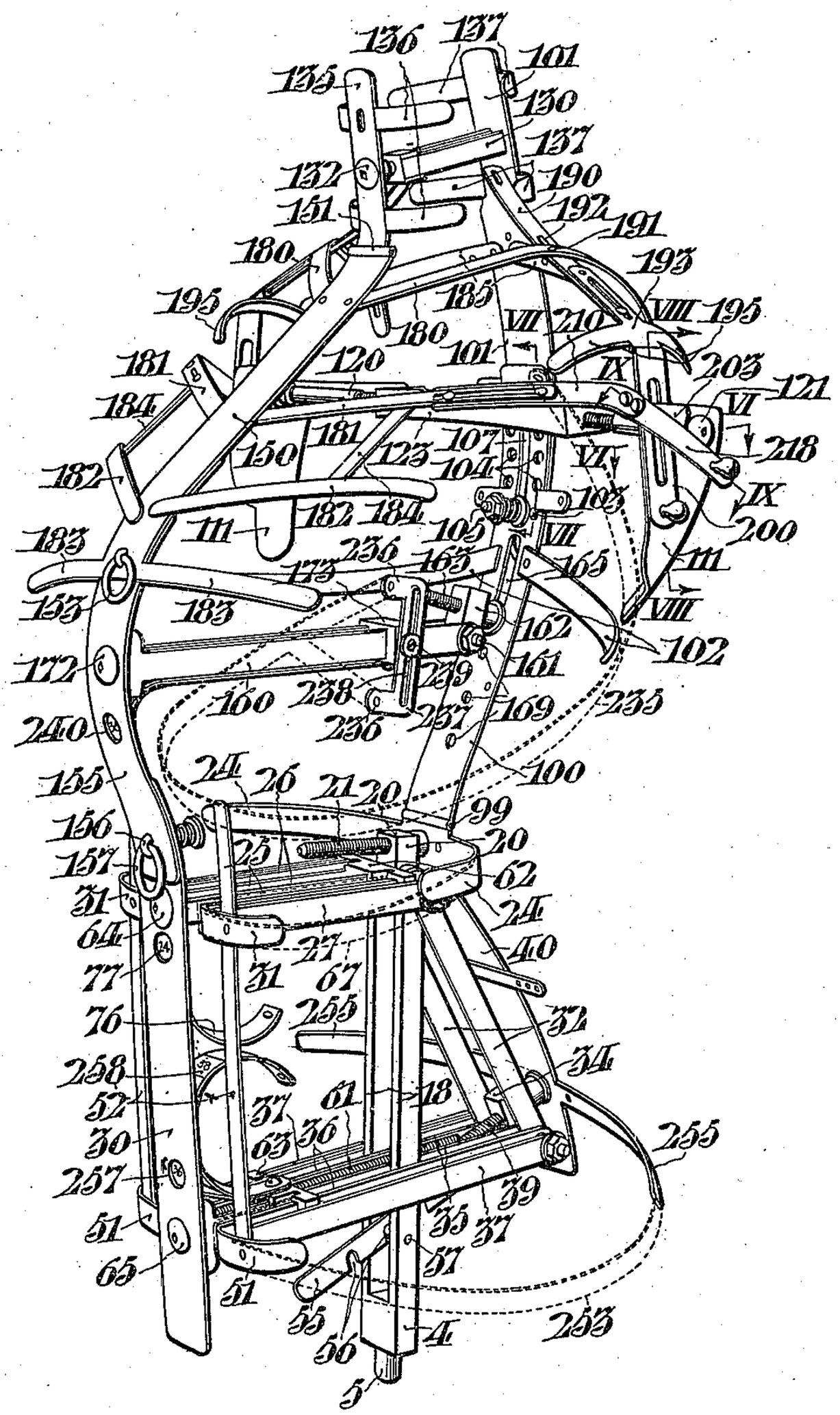
6 SHEETS—SHEET 3.

FIG. III.



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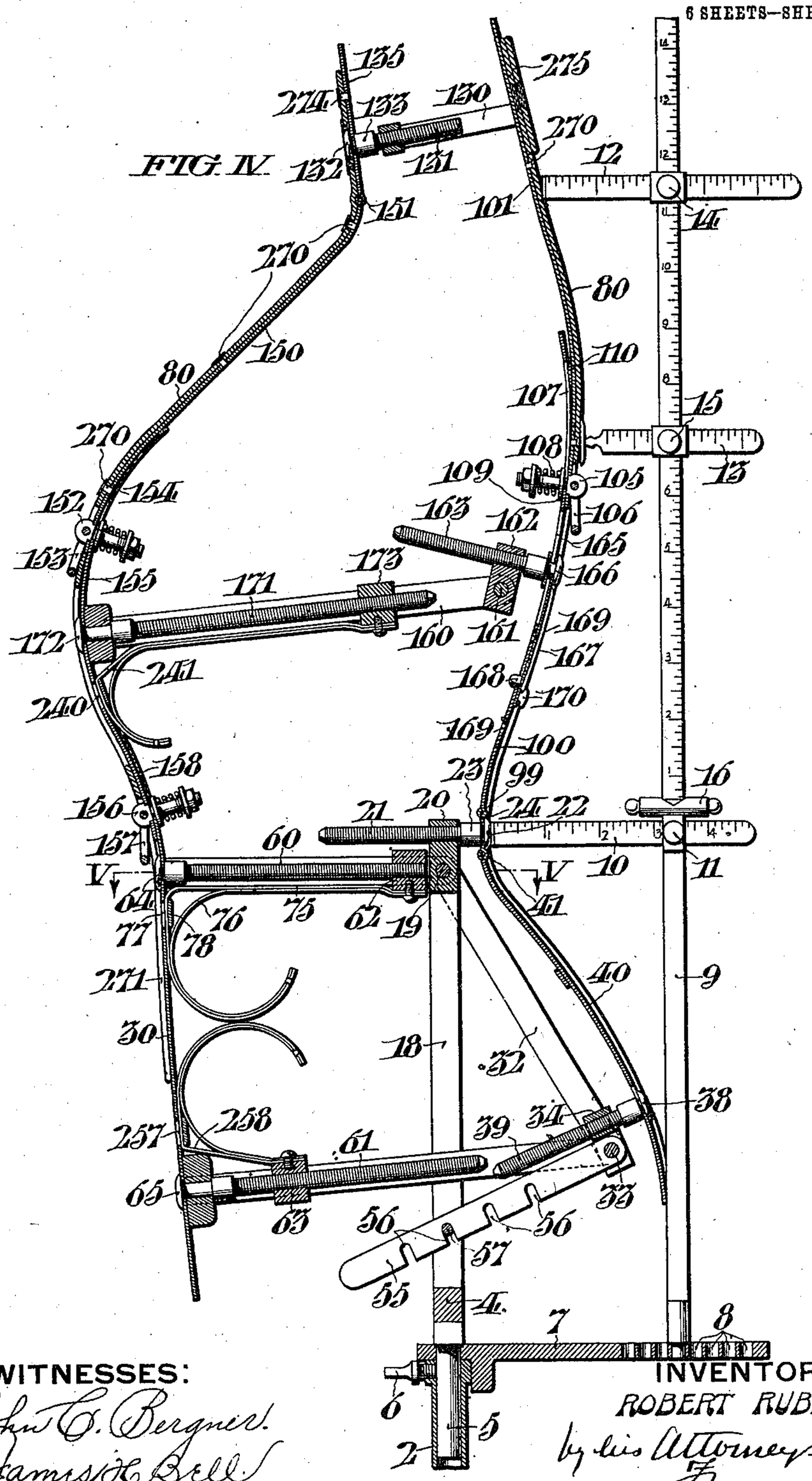
6 SHEETS—SHEET 4.

FIG. IV.



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6 SHEETS—SHEET 5.

FIG. V.

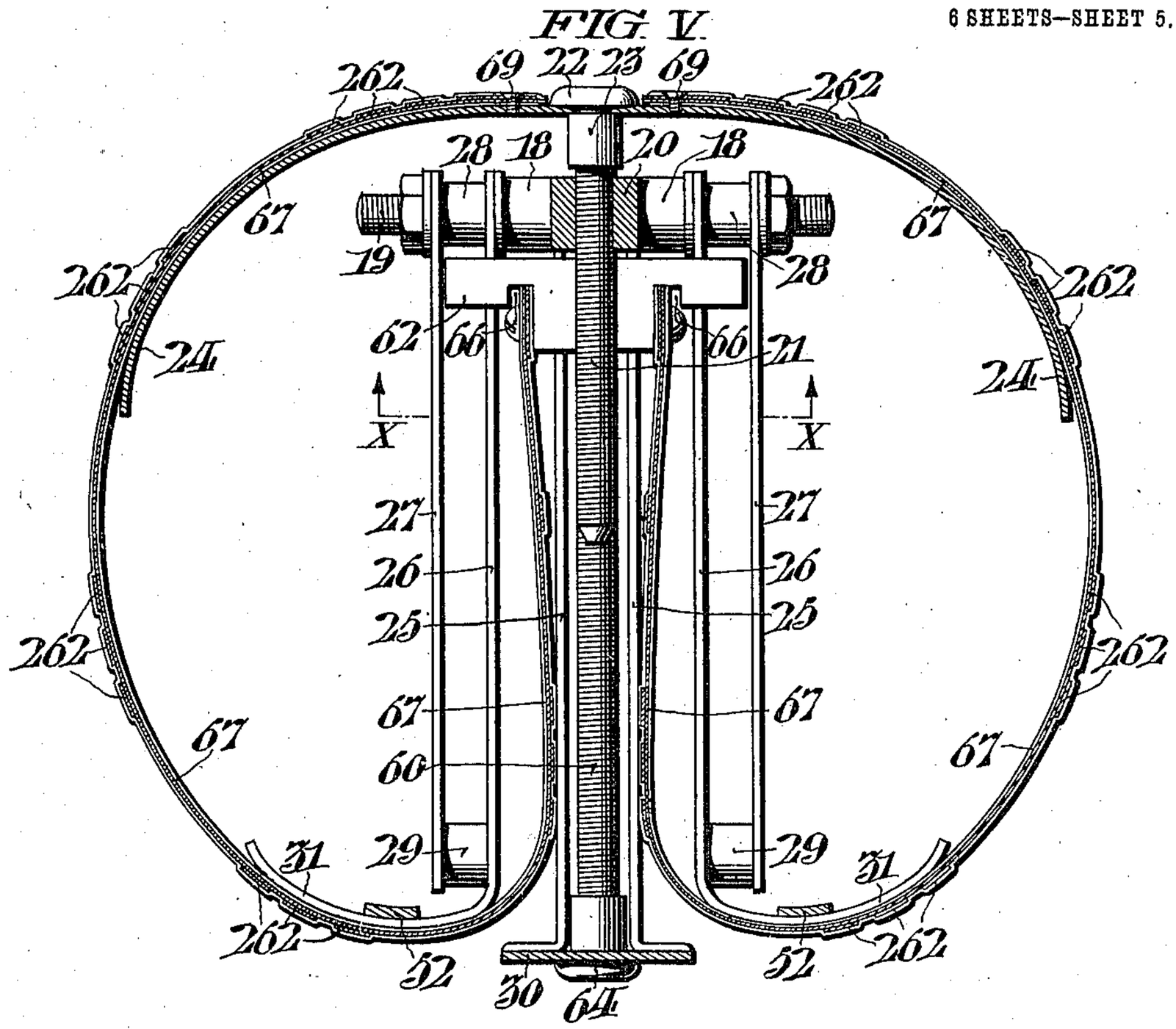
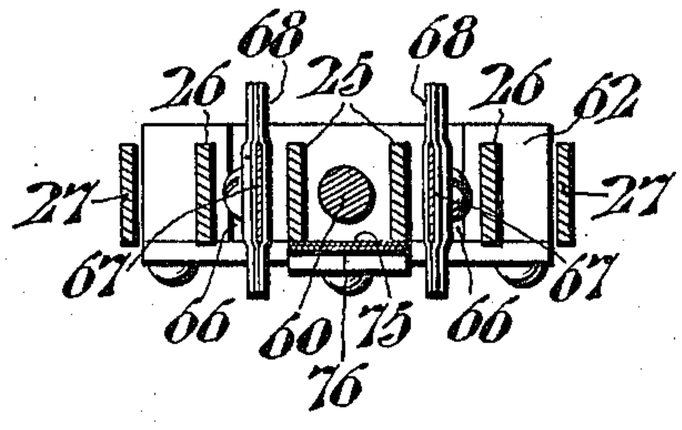


FIG. X.



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6 SHEETS—SHEET 6.

FIG. VI.

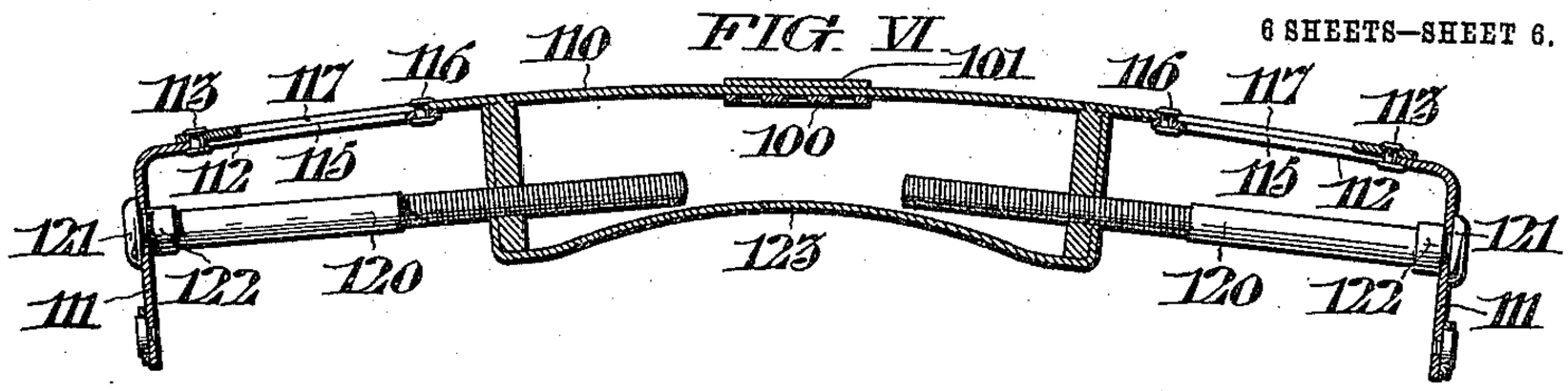


FIG. VII.

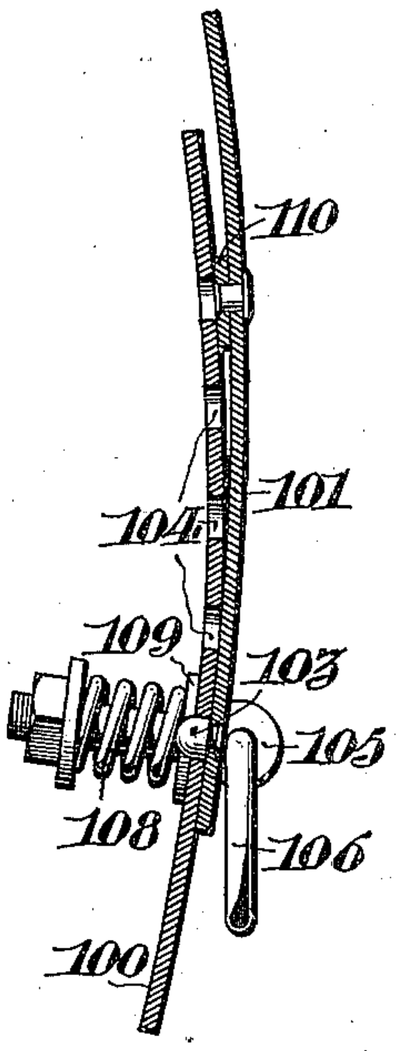


FIG. VIII.

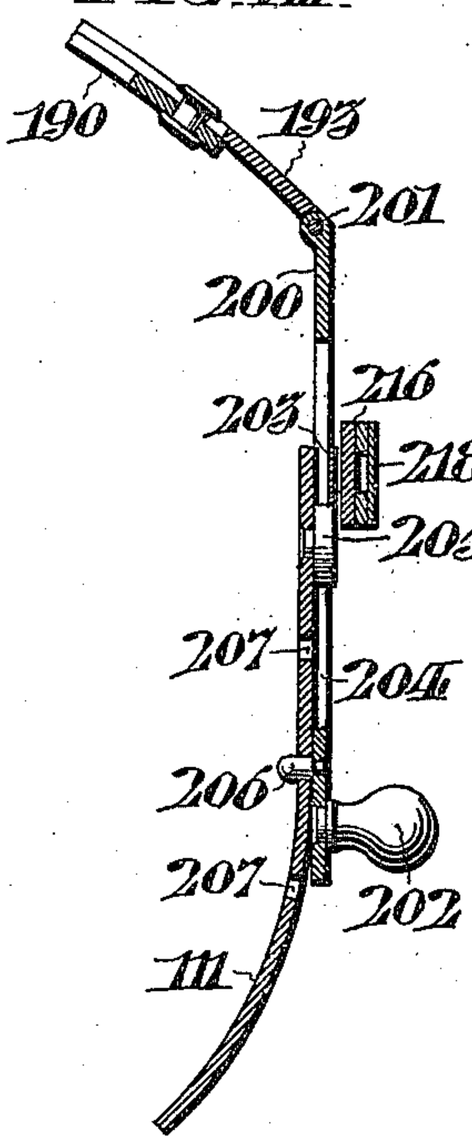
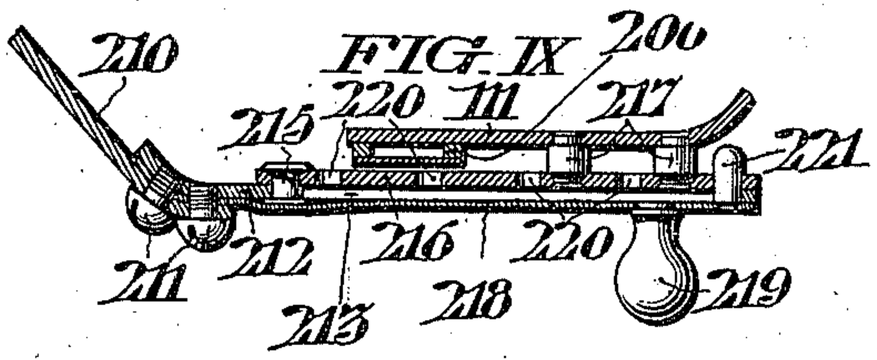


FIG. IX.



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UNITED STATES PATENT OFFICE.

ROBERT RUBIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO MAXIMILIAN KNOLL, OF PHILADELPHIA, PENNSYLVANIA.

DRESS-FORM.

963,724. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed December 29, 1908. Serial No. 469,776.

To all whom it may concern:

Be it known that I, ROBERT RUBIN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Dress-Forms, whereof the following is a specification, reference being had to the accompanying drawings.

My invention relates to dress forms, and has for an object the production of a framework to which is attached an outer shell, which framework and shell may be adjusted simultaneously, so as to correspond to the general outer contour of the desired figure, from the neck to a point below the hips.

A further object of the invention is to provide a dress form which includes a shell having elastic gores together with a suitable supporting adjustable framework.

A further object of the invention is to provide a dress form which includes an outer shell which may be adjusted at various points by withdrawing a portion of the shell within the form.

These and other objects will in part be obvious, and will in part be hereinafter more fully described.

In the drawings which show by way of illustration, one form of my invention; Figure I is a front perspective view of the dress form with its attached shell. Fig. II, is a perspective view of the back of the form, showing the measuring rod as applied thereto. Fig. III, is a perspective view of the form with the shell removed. Fig. IV, is a central vertical section through the dress form. Fig. V, is a sectional view through the waist, and taken on line V, V, in Fig. IV. Fig. VI, is a sectional view across the back, and taken on line VI, VI, in Fig. III. Fig. VII, is a fragmentary sectional view taken on line VII, VII, in Fig. III. Fig. VIII, is a fragmentary sectional view taken on line VIII, VIII, in Fig. III. Fig. IX, is a fragmentary sectional view taken on line IX, IX, in Fig. III. Fig. X, is a cross sectional view taken on line X, X, in Fig. V.

The adjustable supporting stand.—In the drawings, 1, is a hollow vertical post, secured in a suitable base, not shown, but which supports the dress form. Telescoped within said post 1, is the graduated hollow cylindrical rod 2, which may be adjusted vertically for the skirt length, by means of the set screw 3, in the enlarged upper end of said post 1. The bifurcated stem 4, upon which the form proper is supported, is provided at its lower end with a cylindrical lug 5, which is received within the rod 2, and secured by means of set screw 6.

The measuring device.—Resting between the upper end of the rod 2, and the shoulder on the stem 4, is the perforated plate 7, which is provided with an aperture which embraces the lug 5. Said plate 7, is also perforated with a series of apertures 8, to permit the lateral adjustment of the vertical scale 9, whose lower end is shouldered and adapted to be received within the said apertures. Adjustably secured to the scale 9, at the region of the waist, is the horizontal scale 10, which may be laterally adjusted by means of set screw 11. The scales 12, and 13, for measuring the neck and back respectively, are both vertically and laterally adjustable, with respect to the scale 9, by means of set screws 14, and 15. Said scale 9, is provided with a level 16, so that it may be held exactly vertical, during the measuring of the person, to whom the form is to be correspondingly adjusted.

The adjustable skeleton and its pivot support.—The upper end of the bifurcated stem 4, is provided with a pin 19, upon which is pivoted the block 20, which is received between the prongs 18, of said stem 4, (see Figs. III and V). A screw 21 is threaded into the block 20, and supports between its head 22 and the collar 23, the rear waist band 24 (see Figs. IV and V). By means of this screw 21, the back of the waist may be adjusted to any desired position. A front plate 30 is secured on the outer ends of strips 25, which are in turn pivotally connected to the pin 19 between the inner faces of the prongs 18 of the bifurcated stem 4, and the block 20. The strips 26, and 27, are also pivoted at one end on the pin 19, adjacent to the outer faces of the prongs 18, of said stem 4, and are spaced from each other at their pivot ends, by the collars 28. Said strips 26, and 27, are secured to each other at their free ends by means of spacers 29. The strips 26, extend beyond said spacers 29, and terminate in outwardly flared curved ends 31.

Depending from the pin 19, are the links 32, which support at their lower ends, the

pin 33, upon which is pivoted a block 34, and strips 35, 36, and 37, similar to the strips 25, 26 and 27, at the waist of the form (see Fig. III). The head 38, of the screw 39, is rotatably secured in the rear contour plate 40, which is hinged at 41, to the waist band 24. The shank of said screw 39, is threaded into the block 34, and permits the lateral adjustment of the plate 40, at the back of the form, at the region of the hips. Strips 35, have their outer ends secured to the front plate 30, and support it in coöperation with the strips 25. The strips 36, and 37, are arranged in pairs and spaced similar to the strips 26, and 27. Said strips 36, terminate in rounded outwardly flared ends 51, and are connected with the flared ends 41, of strips 26, by means of the vertical pieces 52.

The entire form as will appear hereinafter, is pivotally supported on the pin 19. As a means for adjusting the form about the pin 19 and retaining the same in its adjusted positions, I have provided an arm 55, which is pivoted in a slot in the block 34, by the pivot pin 33. Said arm 55 extends between the prongs 18 of the stem 4 and has spaced notches 56 adapted to engage the pin 57, secured to said stem 4.

Rotatably secured in the front plate 30, are the screws 60, and 61, which are threaded into the sliding blocks 62, and 63, respectively, and are provided with heads 64, and 65. The block 62, is slotted to receive the strips 25, and 26, by which it is supported and guided in its motion (see Fig. X). The block 63, is similarly slotted to receive the strips 35, and 36, which guide and support it. The screws 60, and 61, by their threaded engagement with the slide blocks 62, and 63, permit the adjustment of the waist and hip regions as will be more fully hereinafter explained.

Hinged at 99, to the upper edge of the rear waist band 24, is the back center plate 100, which is supplemented by a second back plate 101, which extends upward beyond said plate 100, to the neck of the form. To the lower end of said plate 101, are secured two rounded pins 103, which are adapted to engage the apertures 104, which are arranged vertically in pairs in plate 100, (see Figs. III, IV, and VII). An eye bolt 105, provided with a finger ring 106, is secured in the lower portion of said plate 101, and extends through the elongated slot 107, in plate 100, and is surrounded by a spring 108, which is compressed between an adjusting nut, on said bolt 105, and a washer 109, which spans the slot 107, best shown in Figs. IV, and VII. By grasping the finger ring 106, the plate 101, may be separated from the plate 100, against the compression of the spring 108, thereby disengaging the pins 103, from one pair of apertures 104, whereupon said pins may be inserted into any other pair, by raising said plate 101, which is guided by the bolt 105, within the slot 107, to the level required for the desired height of the shoulders.

Directly below the ring 106, the back plate 100, is provided with laterally projecting curved arms 102, which conform with the shape of the desired figure at that point and help to support the shell of the form, (see Fig. III).

The shoulder construction.—A strip 110, extends horizontally across the back of the form at the level of the shoulders and is secured at its center to the supplemental back plate 101, slightly above the eye bolt 105, (see Figs. IV and VI). The strip 110, adjustably supports at its ends the shoulder end plates 111. Said plates 111 have inwardly projecting members which are slotted to receive a rivet 113 carried by the ends of the strip 110. Said strip is also slotted to receive a similar rivet 116, carried by said members 112. The screws 120, receive between their heads 121, and collars 122, the shoulder end plates 111, and their shanks are threaded into the yoke 123, which is secured to the strip 110. The width across the shoulders may be adjusted by means of said screws 120, the slot and rivet connection between the strip 110 and the shoulder plates permitting the adjustment.

The neck adjustment.—At the center of the neck, the yoke 130, is secured to the plate 101, and receives the threaded shank of the adjusting screw 131, which supports between its head 132, and collar 133, the front neck plate 135. Said screw 131, permits of the adjustment of the diameter of the neck. The front neck plate 135, is provided with curved laterally projecting strips 136, which coact with similar strips 137, on the upper back plate 101, to form a support for the neck band of the cover of the form.

The adjustment of the contour at the front medium line of the figure.—The breast plate 150, is hinged at 151, to the lower end of the front neck plate 135, and extends down the front of the breast and has secured to its lower end, an eye bolt 152, and ring 153, similar to the eye bolt 105, above described, (see Fig. IV). Said eye bolt 152, extends through the elongated slot 154, in the upper end of the contour plate 155, which is adjusted by a similar means, and bears the same adjustable relation to the breast plate 150, as exists between the two supplemental back plates 100, and 101. At the lower end of the contour plate 155, another eye bolt 156, with a ring 157, similar to those already described, is secured and extends through a slot 158, in the upper end of the front plate 30. By this means, the contour plate may be vertically adjusted with respect to the front plate 30. It will be readily seen from the

foregoing, that by the arrangement of the parts just described, the front of the breast may be adjusted through a wide range of sizes accordingly as required.

The adjustment for the lateral distention of the rear contour plate.—The guide strips 160, are secured at the front, to the center of the contour plate 155, and at their other ends support a pin 161, upon which is pivoted a block 162. Said block 162, is threaded to receive the shank of the adjusting screw 163, which extends through a vertical slot 165, in the back plate 100, and terminates in a head 166. Said head 166, of the adjusting screw 163, is supported at the upper end of a spring supporting member 167, which is provided at its lower end with a rounded pin 168, arranged to engage a series of vertically disposed apertures 169, in the back plate 100. By grasping the thumb knob 170, at the lower end of the spring supporting member 167, the rounded pin 168, may be withdrawn from, and inserted into, any one of the apertures 169, thus allowing the screw 163, to be raised or lowered as desired.

It will be noticed that by turning the screw 163, the back of the form may be distended. By adjusting the screw up and down the slot 165 the point where the back is distended by the screw 163, may be varied.

The breast construction and adjustment.—An adjusting screw 171, having a head 172, is rotatably supported at the front of the form, at the center of the contour plate 155. The shank of said screw 171, is threaded into a slide block 173, which is supported and guided by the strips 160, for a purpose to be hereinafter set forth.

The front breast plate 150, supports four pairs of breast contour strips 180, 181, 182, and 183. The uppermost strips 180, extend across the top of the shoulders and are connected to the ends of two straps 185, which extend transversely across the back of the shoulders and terminate in the back plate 101.

The vertical adjustment of the shoulders.—The shoulder strips 190, are slidably attached to the strips 180, by means of the rivets 191, which are secured in strips 180, and adapted to slide within the slots 192, in said strips 190. The strips 190, slant upwardly toward the neck, and at their other ends, slidably support the shoulder plates 193, from which project the pieces 195, which are curved to correspond to the contour of the shoulders at that point. The vertical plates 200, are hinged at 201, to the shoulder plates 193, and provided with finger knobs 202, at their lower ends, and are normally maintained against the vertical end plates 111, by means of springs 203. Referring to Figs. III, and VIII, it will be seen that the plates 200, are provided with slots 204, which receive the disks 205, which guide said plates in their vertical motion. The plates 111, are perforated with a series of vertically disposed apertures 207, which are adapted to receive the rounded pins 206, in the lower ends of levers 200. By this arrangement, the shoulders may be raised or lowered to the desired position.

The adjustment for swelling the breast.—The breast contour strips 181, are also slidably secured to bands 210, which are fastened at their other ends to the slotted slide plates 212, by means of screws 211, (see Fig. IX). Said plates 212, are provided with guide slots 213, which receive the rivets 215, which are secured in the perforated plates 216, which are in turn secured to the shoulder end plates 111, by means of the shouldered spacers 217, thus providing a space for the plate 200. A spring arm 218, is secured at one end at the junction of the band 210, and slide plate 212, and at the other end is provided with a finger knob 219. The plates 216, are perforated with a series of apertures 220, which are adapted to receive the rounded pin 221, in the free end of the spring arm 218. By pulling the finger knobs 219, against the action of the spring of arms 218, the pins 221, may be withdrawn from any one of the apertures 220, and the slotted slide plates 212, guided by rivets 215, may be shifted and the pins 221, inserted into any of the other apertures 220, to increase or reduce the breast by reason of the connections with the bands 210.

Shoulder plates 193, are slidably secured to the strips 180, to allow for the extension of the shoulders by means of the adjusting screws 120. The same is true of the slotted connections between the strips 181, and 210, and said strips 181 are connected with strips 182, by means of the cross pieces 194.

The sectional shell and its adjustment.—The slide block 62, on the bars 25, and 26, is recessed at 66, to receive the ends of spring bands 67, which are fastened by means of screws. Said spring bands 67, are secured to the lower portions 68 of the shell, and extend outwardly between the bars 25, and 26, and are supported by the curved ends 31, of the strips 26, from whence they extend across to the rear band 24, to which their ends are secured by means of screws 69, directly adjacent to the center of the back. By the manipulation of the screw 60, and by virtue of the flexibility of the band 67, the shell may be convolved at the waist to any desired size.

To the bottom face of block 62, is secured a graduated tape 75, which is reinforced by spring 76, secured at either end to said tape 75. The front plate 30, is provided with an aperture 77, which is bridged at the back by a plate 78, under which the tape 75 passes. When the block 62 is drawn outwardly said tape 75, also moves therewith under the action of the spring 76, and re-

cords the size of the waist at the aperture 77. The flexible bust bands 235, one of which is shown in Figs. III and X, are also sewed fast to the upper part of the lower portion 68, of the shell and are forked at one of their ends to engage the spaced projections 236, of the slotted plates 237, to which these forked ends are riveted. One of the plates 237, is shown in full lines in Fig. III, the other has been omitted to avoid confusion. Said plates 237, are provided with slots 238, which receive the screws 239, which are secured in the slide block 173. The other end of the flexible bands 235, are fastened at the top of the back plate 100. By means of the adjusting screw 171, the bust portion may be adjusted to any size, which is recorded at the aperture 240, by the spring backed graduated tape 241, also secured to the slide block 173.

The slide block 63, on the bars 35, and 36, at the hip region, is recessed similar to block 62, to receive the ends of the flexible bands 253, which are sewed to the bottom edge of the lower portion 68, of the shell. Said bands 253 extend outward from the block 63, between the strips 35, and 36, and are supported and curved by the flared ends 51, of strips 36, and the lateral curved strips 255 of the back plate 40, to which their other ends are secured by means of screws 256, adjacent to the center of the back. By this means the hip portions of the form may be adjusted as desired and the size of the adjustment recorded at the aperture 257, by the graduated tape 258, which is backed by a spring and is secured to the upper face of the block 63.

By reference to Figs. I and II, it will be seen that the lower portion of the shell is made up of two parts 68, which are secured at the back to the plates 40, 100, and the band 253 by means of screws, and are slitted at intervals along their upper and lower edges, to receive the elastic gores 260 and 261, respectively. In addition to the flexible bands 235, 67, and 253, the lower portions 68, of the shell are reinforced by intermediate horizontal bands not shown, and also between the elastic segments and at their edges by means of a series of vertical flexible strips 262, shown in section in Fig. V. The flexible bands 235, 67 and 253, normally tend to press the shell outward and the adjusting screws which withdraw the edges of the shell within the form, cause the shell to be contracted against the expanding influence of the flexible bands, and also against the expanding influence of the projecting arms carried by the back contour plate.

The upper portion 80, of the shell is fastened at the front to the breast plate 150, and also at the rear to the supplemental back plate 101, by means of screws 270. Said upper portion 80 is adapted to overlap the lower portion 68 and is provided at the front with two depending flaps 271, which may be pinned or otherwise temporarily fastened to the lower portion. The upper portion 80, is also provided at the region of the arm pits, with flaps 272, and 273, which are arranged to overlap, to allow for the adjustment of the bust, and after such adjustment may be pinned to each other. The collar band 275 is reinforced by horizontal flexible bands, which with the coaction of the curved strips 136, and 137 on the plates 135, and 101, respectively, conform with the shape of the neck. Said collar band 275, is fastened at the front to the upper portion 80 of the shell and also to the plate 135, by a screw 274, and is arranged to overlap at the back to allow for different sizes of the neck. The upper portion 80, of the shell is also provided with elastic segments 276, and 277, at the shoulders and bust front, respectively.

It will be noticed that all the adjusting screws are accessible from the outside of the form, and that they are provided with squared holes adapted to receive a key by means of which they are turned.

Having thus particularly described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a dress form, the combination of a shell conforming generally to the human figure, a supporting framework, and means for drawing a portion of the shell within said framework for contracting the shell.

2. In a dress form, the combination of a shell conforming substantially to the human figure, subdivided along the median line in front, a supporting framework; and means for causing the shell to contract or expand by drawing a portion of the shell along the median line of the figure within the framework, or moving the same outward.

3. In a dress form, the combination of a supporting framework, a shell of textile material, provided with elastic gores covering said framework, and means for independently adjusting the hip portion, the waist portion and the bust portion of said framework and covering shell.

4. In a dress form, the combination of a supporting framework, a shell conforming generally to the human figure, said shell having a non-elastic waist portion and elastic gores at the hip portion and bust portion of said shell, and means for independently adjusting the hip portion, the waist portion and the bust portion of the framework and covering shell.

5. In a dress form, the combination of a supporting framework surrounded by a shell conforming generally to the human figure and divided along the median line; slideways forming part of the framework with

slide blocks which are thereby guided substantially horizontally along the vertical median plane of the figure, the edges of the shell being permanently attached to said slide blocks.

6. In a dress form, the combination of an adjustable framework and an expansible covering shell, said framework including a vertically extensible back plate to which the shell is affixed at the middle of the back, and a vertically extensible contour plate occupying the median line of the front of the figure, and capable of holding its shape and position, irrespective of the expansion and contraction of the shell.

7. In a dress form, the combination of an adjustable framework and an expansible covering shell, said framework including a vertically extensible back plate to which the shell is affixed at the middle of the back, a vertically extensible contour plate occupying the median line of the front of the figure and capable of holding its shape and position, irrespective of the expansion and contraction of the shell, and means for varying the horizontal distance between the back plate and the contour plate.

8. In a dress form, the combination of an expansible shell corresponding to the human figure and divided in front along the median line; a back contour plate supporting said shell along the median line at the back and permanently affixed thereto; and adjustably supported with relation to a front contour plate also situated along the median line; slideways supported between said two plates carrying slide blocks to which are attached the free edges of the waist shell where divided in front; expansible means within the waist shell; and means for controlling the motion of the slide blocks so as to cause the contraction or expansion of the waist shell according as the slide blocks are moved toward or away from the back contour plate.

9. In a dress form, the combination of a shell having elastic portions, said shell being divided in front along a median line, an adjustable supporting framework within the same, said framework having yielding portions pressing outwardly against the shell, and means for effecting a contraction of the shell against the expanding influence of said yielding portions by causing the free edges of the shell to be drawn within the shell.

10. In a dress form, the combination of a shell having elastic portions, said shell being divided in front along a median line, an adjustable supporting framework within the same, said framework having yielding portions pressing outwardly against the shell, means for effecting a contraction of the shell against the expanding influence of said yielding portions by causing the free edges of the shell to be drawn within the shell, and a registering means whereby the extent of the drawing in of the shell is indicated.

11. In a dress form, the combination of an expansible shell having elastic portions, said shell being divided in front along the median line; resilient means for supporting and expanding said shell; a slideway with a slide block to which the free edges of the shell are attached; and a horizontal screw passing through the slide block and by which its horizontal position is varied, whereby the infolding of the edges of the shell is controlled.

12. In a dress form, the combination of a front contour plate, consisting of a plurality of overlapping and hinged segments in adjustable relation to each other, means for affording and retaining such adjustment; a back contour plate also consisting of a plurality of overlapping and hinged segments in adjustable relation to each other, means for affording and retaining the adjustments of the said back contour plate; a screw supported within the segments of said back contour plate, rods extending from the segments of the front contour plate, and a block pivotally supported by said rods, into which said screw is threaded, whereby said back contour plate may be adjusted relative to the front contour plate.

13. In a dress form, the combination of a supporting framework, consisting of relatively adjustable front and back contour plates, a plurality of resilient contour strips supported by said contour plates, a shell covering said supporting framework, a supporting stand, means for pivotally connecting said framework to said supporting stand, means for vertically adjusting said framework, and means whereby said framework may be angularly adjusted relative to the stand and held in its adjusted position.

14. In a dress form, the combination of a transverse strip supported on a back contour plate at the region of the shoulders; shoulder end plates slidably supported on the said transverse strip; adjusting screws carried by the said shoulder plates, and threaded into a yoke on said transverse strip, to permit the lateral adjustment of the shoulders.

15. In a dress form, the combination of a top shoulder strip, consisting of a plurality of segments in slidable relation to each other; a hinged spring pressed extension on the outer end of the said strip; a pin on said extension adapted to register with a series of apertures in a shoulder end plate, whereby the said hinged extension, is vertically adjustable with respect to the said shoulder end plates to vary the height of the shoulder.

16. In a dress form, the combination of a transverse breast strip consisting of a plurality of segments in slidable relation to each other, and secured at one end to a front contour plate; means on the other end of

the breast strip whereby it is adjustably supported with respect to a shoulder end plate, to permit the swelling of the breast of the figure.

17. In a dress form, the combination of a shell, means for expanding and contracting said shell, and means for indicating the extent of expansion or contraction including a tape and a yielding back member to which the ends of the tape are secured, said shell having an opening through which the position of the tape may be observed.

In testimony whereof, I have hereunto signed my name, at Philadelphia, Pennsylvania, this twenty-fourth day of December 1908.

ROBERT RUBIN.

Witnesses:
JAMES H. BELL,
E. L. FULLERTON.