May 1, 1956 E. G. HANKS 2,743,535

HEAD FORM FOR ARTISTS' AND SCULPTORS' USE

Filed Aug. 26, 1952 3 Sheets-Sheet 1

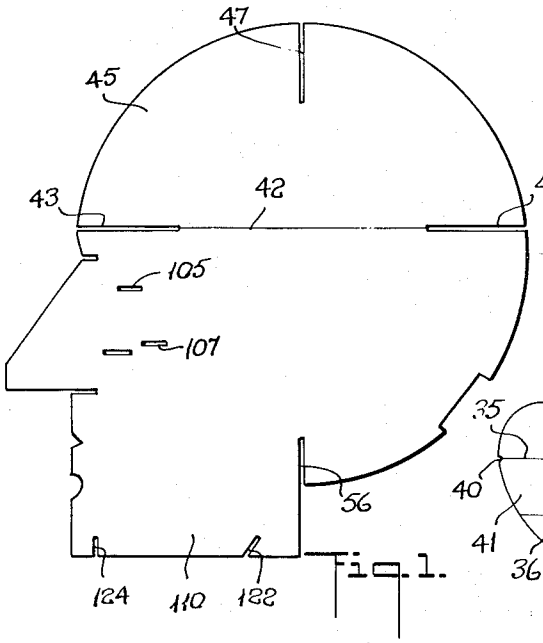


Fig. 1.

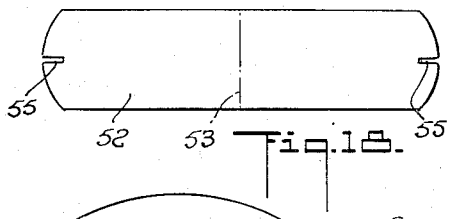


Fig. 1a.

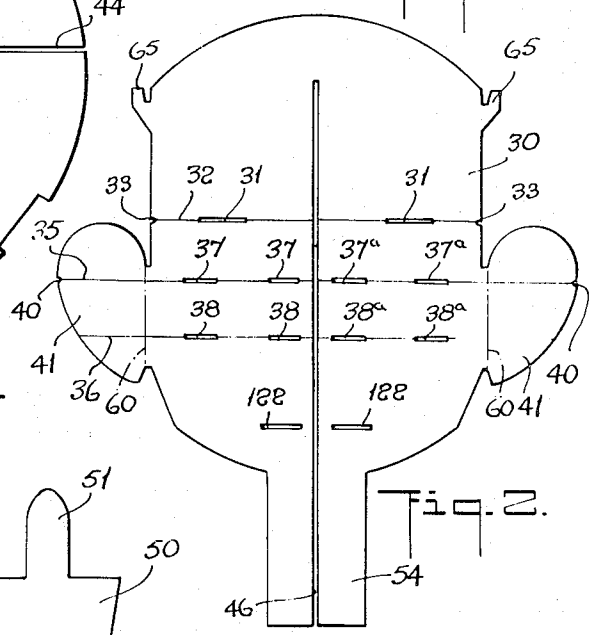


Fig. 2.

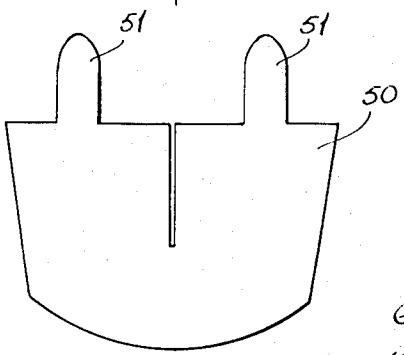


Fig. 3.

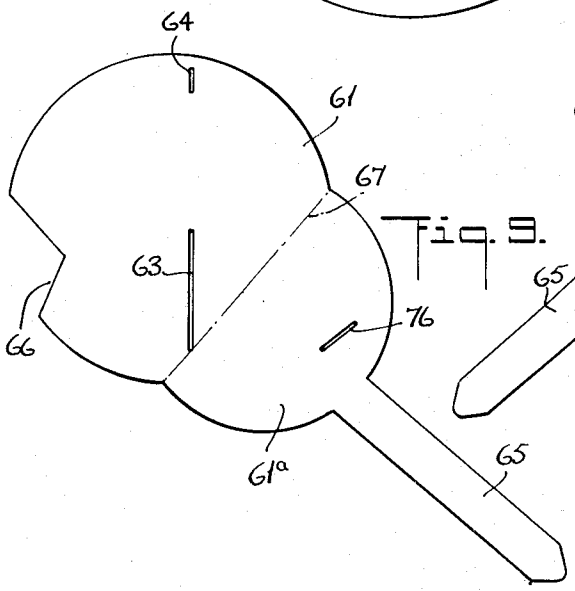


Fig. 9.

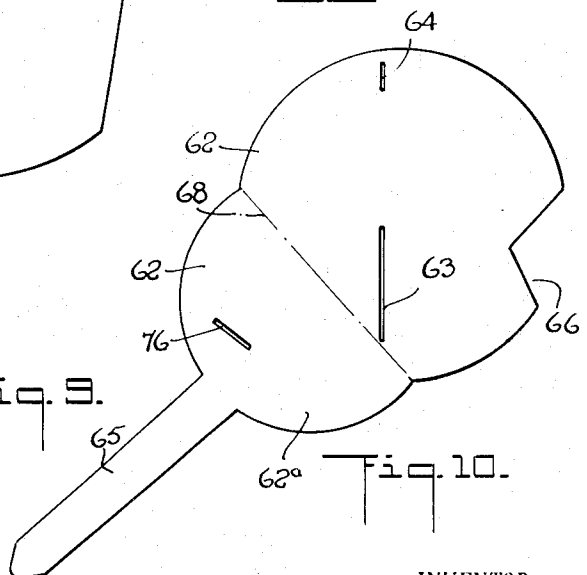


Fig. 10.

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HEAD FORM FOR ARTISTS' AND SCULPTORS' USE

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Fig. 4.

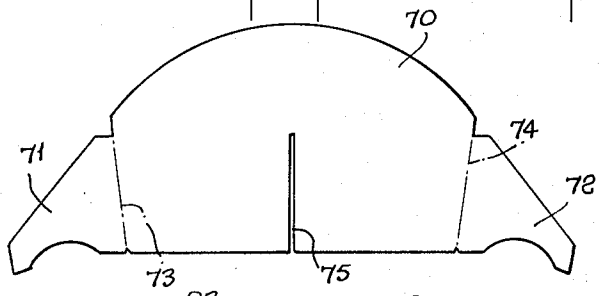
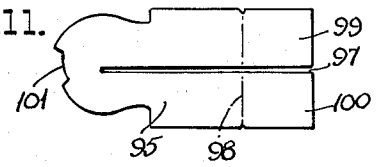


Fig. 11.



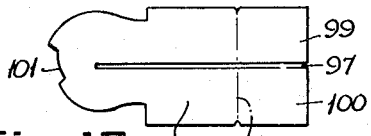


Fig. 12.

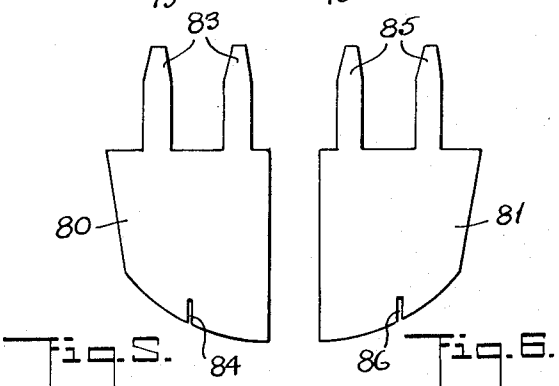


Fig. 5. Fig. 6.

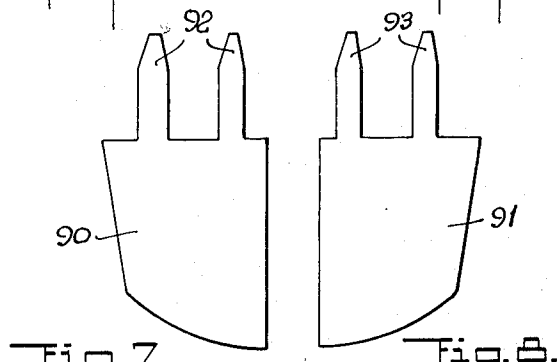


Fig. 7. Fig. 8.

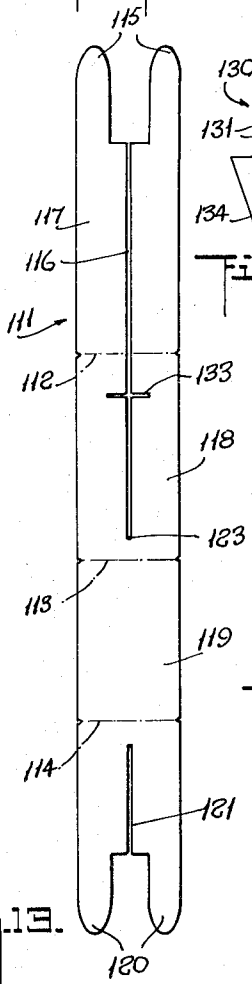


Fig. 13.

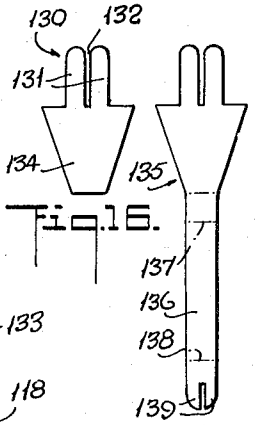


Fig. 16. Fig. 17.

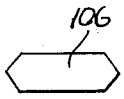


Fig. 19.

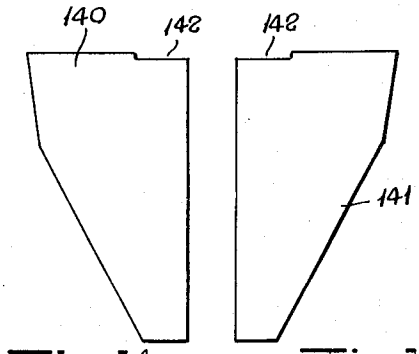


Fig. 14. Fig. 15.

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HEAD FORM FOR ARTISTS' AND SCULPTORS' USE

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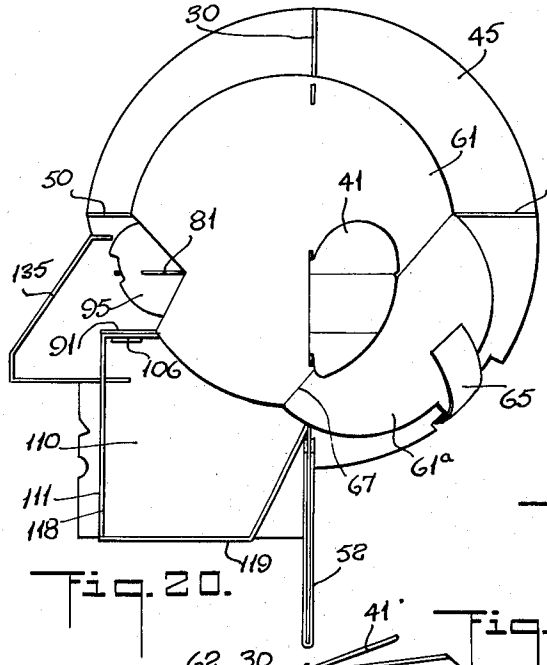


Fig. 2.0.

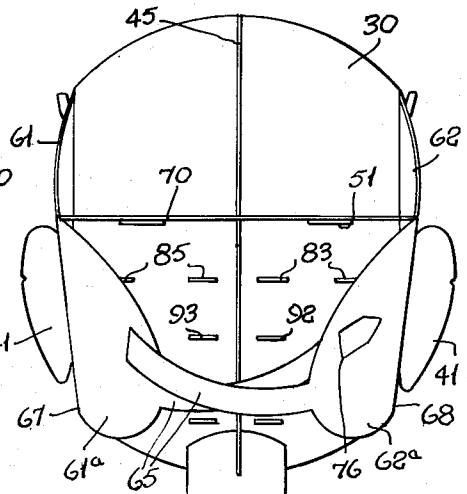


Fig. 2.1.

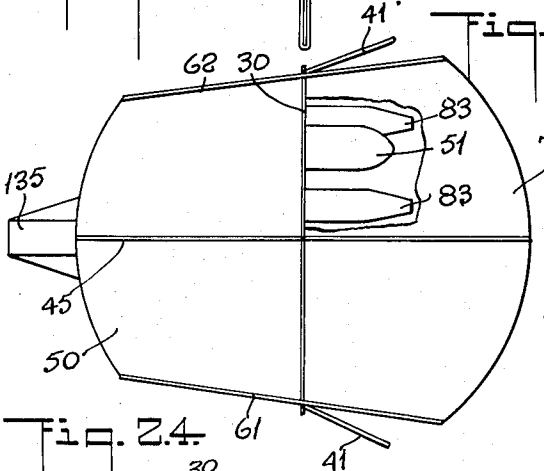


Fig. 2.4.

Fig. 2.2.

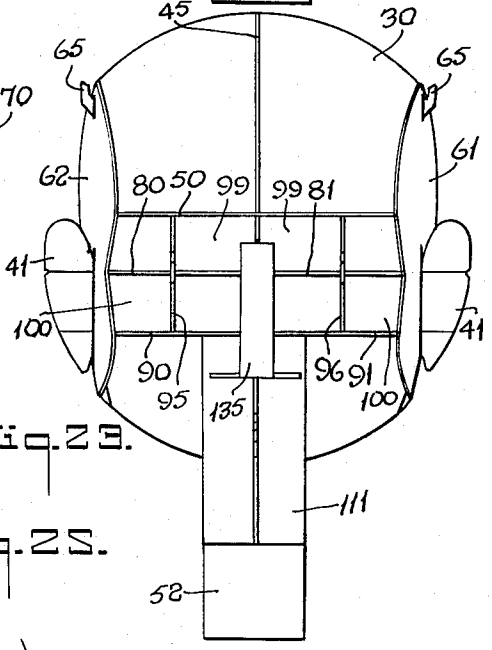


Fig. 2.3.

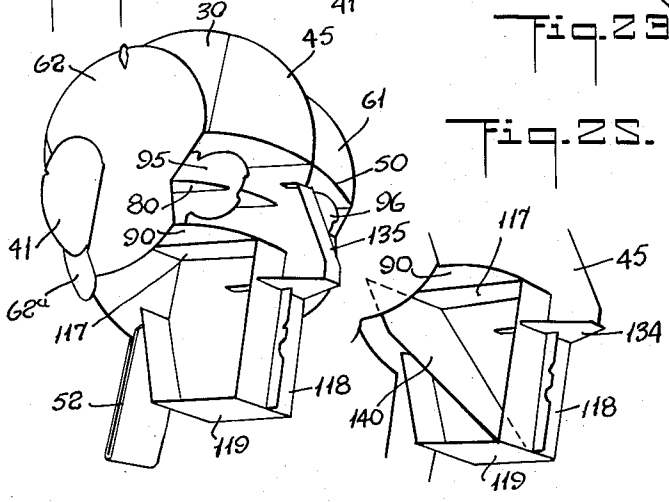


Fig. 2.5.

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United States Patent Office 2,743,535 Patented May 1, 1956

2,743,535

HEAD FORM FOR ARTISTS' AND SCULPTORS' USE

Emily Grace Hanks, New York, N. Y.

Application August 26, 1952, Serial No. 306,405

12 Claims. (Cl. 35—26)

This invention relates to an artists or sculptors educational device and is an improvement on my Patent No. 1,840,507, granted January 12, 1932.

The general objects of such a device are set forth in my above mentioned patent although it may be briefly stated that the device is intended to acquaint art students and the like with the basic and fundamental proportions of the human head. The device of the instant invention is intended to increase the sensitiveness and awareness of the artist or student with the contours of the head which are common to practically all individuals. Thus, after a relatively short period of study, practice, and assimilation of the teachings afforded by the device, the artist may produce a wide range of caricatures, if desired, without making any appreciable change from the average skull structure which is depicted by the device.

The device as illustrated in my prior patent was found by me to embody some inadequacies and defects. For example, being completely solid, it was relatively expensive to produce and rendered certain head positions difficult to visualize and comprehend. These defects, are corrected, as will be hereinafter shown, by the article of the instant invention which is not only extremely simple in fabrication and construction but which provides advantages not heretofore possible in any prior art device. Thus, the head form of the instant invention is constructed in accordance with the basic planes and cross-sections of the human head. By employing substantially only such planes, it is far more easy to visualize certain perspectives and to appreciate the changes and contours as the head form is moved or rotated into various positions.

The head form is preferably, but not necessarily, made of cardboard or plastic sheets or the like and it may be assembled and taken apart if desired for study. Its elements are held together by folding, or by tabs or the like which project from the sheets so that such sheets may be easily separated and assembled or disassembled.

Another advantage of the device of the instant invention is that by the utilization of planes rather than three dimensional elements, the device can more readily serve as an armature or skeleton for sculpturing. Thus, the chambers formed by the plane elements may be filled with a conventional sculpturing or molding substance such as "Plasticene" and molded into a sculptured head. Furthermore, the fact that the device is made of cardboard or plastic sheeting, permits some changes to be made by cutting or otherwise modifying the sheets if desired, to represent diverse forms or individual eccentricities of head structures.

The invention will be further understood from the following description and drawings in which:

Figures 1 to 19 show the individual blanks or elements employed to make up the completed head form. Thus, Figure 1 is the front-to-back, vertical plane of the improved head form, this plane representing the profile of the head;

Figure 2 is the center, side-to-side, vertical plane;

Figure 3 is the front brow horizontal plane;

Figure 4 is the rear brow level horizontal plane;

Figures 5 and 6 are the central, horizontal eye socket planes;

Figures 7 and 8 are the lower eye socket or cheek bone horizontal plane;

Figures 9 and 10 are the side pieces;

Figures 11 and 12 are the eye pieces;

Figure 13 is the chin to lower eye socket piece;

Figures 14 and 15 are the cheek pieces;

Figure 16 is one form of nose base;

Figure 17 is a second form of nose base which provides the nose with a width of bridge;

Figure 18 is a hand-hold strip by which the head form may be manually supported;

Figure 19 is a tab support for maintaining some of the parts in position;

Figure 20 is a side view of the assembled head form;

Figure 21 is a rear view;

Figure 22 is a top view;

Figure 23 is a front view;

Figure 24 is a perspective view on a reduced scale; and

Figure 25 is a fragmentary view similar to Figure 24 but illustrating the insertion of the cheek pieces.

The basic head form, as shown in Figures 20 to 25, is assembled from the elements shown in Figures 1 to 19. These elements may be cut or stamped from sheets as above described and, in fact, as drawn herein, they are in proper proportion. Before assembling the head form, it is helpful to draw lines in pencil on the level of and indicating the slots in the side-to-side, center, vertical plane **30** illustrated in Figure 2. Thus, a line **32** may be drawn across the member **30** so as to pass over the slots **31** and the drawing thereof may be guided by the notches **33**.

Horizontal lines **35** and **36** may then be drawn across the row of slots comprising horizontal slots **37** and **37***a* and across second horizontal row comprising the slots **38** and **38***a*. One line for each row may suffice, being drawn completely across the row and even across the ears. As will be hereinafter understood, the line **35** which is drawn across the ears is helpful in understanding the position of the ears in drawing the head in difficult positions. In order to guide the accuracy of line **35**, a pair of notches **40** are formed in the ears **41**. Line **35** is the important line, as aiding in establishing and visualizing the position of the ears in relation to the other elements of the head. It is also recommended that a line **42** be drawn from the brow slot **43** in Figure 1 to the back slot **44** thereof.

The elements may now be assembled by connecting vertical, side-to-side plane or sheet **30** with the vertical, front-to-back plane or sheet **45**. Thus, the elongated slot **46** of plane **30** is slipped over the center of plane **45** until the upper end of slot **46** rests in the lower end of slot **47**. It should be observed that the pencil line **42** is in horizontal alignment with the pencil line **32**. Thereafter, the front brow horizontal plane **50**, illustrated in Figure 3, is connected to plane **30** by inserting the tabs **51** into the slots **31**, observing that the rear edge of plane **30** is in alignment with line **32**.

At this point, the hand hold member **52**, illustrated in Figure 18, should be bent centrally along the line **53** and it should then be slipped over the hand hold portion **54** of plane **30** until notches **55**, which have been rendered coincident by the bending, enter slot **56** of plane **45** where member **52** is held in its furthermost position. Thus, hand hold member **52** provides a firm grasping device for the central, lowermost part of the head.

The ears **41** should now be bent rearwardly and lines **60** serve as a guide therefor. Lines **60**, it will be ob-

served, are spaced slightly outwardly from the sides of the head as visualized by the outlines of plane **30**, and they may be scored so as to facilitate such rearward bending. The outward spacing of the lines provides a clear area for the hinge action of the side piece **61** and **62** shown in Figures 9 and 10 respectively. It is recomemnded that the ears be bent backward to a 45° angle at this time although further bending can be made subsequently as desired.

The next step is to apply the side pieces **61** and **62** which represent the sides of the human head. It will be observed that these side pieces are formed with central slots **63** and the respective ears **41** are slipped through these slots by a rotating action and the connection serves to maintain the side pieces in position. The side pieces are also formed with upwardly disposed, smaller slots **64** into which the tabs **65** of plane **30** are slipped so as to effect more secure retention of the side pieces. The side pieces are further formed with arms **65** which permit them to be locked together as will be hereinafter explained. It will be observed that each side piece is formed with a triangularly shaped cut-out portion **66**, such cut-out portion representing the eye socket area. The side pieces are formed with lower portions **61***a* and **62***a* adapted to be bent inwardly along the lines **67** and **68** respectively. These lower portions represent the downwardly and backwardly sloping portions of the mastoid area of the human head and are extremely useful in visualizing the rear portions of the head.

The next step is to connect the rear brow horizontal plane **70** which is illustrated in Figure 4. Plane **70** is formed with a pair of side tabs **71** and **72** which should first be bent downward along the lines **73** and **74**. Slot **75** is then slipped perpendicularly into slot **44** so as to secure plane **70** in place. It will be observed that tabs **51** which have been inserted into and through slits **31**, also serve to support the rear brow horizontal plane **70**. The side tabs **71** and **72** both space the side pieces properly and help maintain plane **70** in position by resting against the inwardly bent lower portions **61***a* and **62***a* (Figs. 9, 10, 21 and 24).

At this time, the side pieces may be locked to each other by bending the arms **65** into arcuate form and slipping them into the slot **76** of the opposite side piece as illustrated in Figure 21. The center, horizontal eye socket planes **80** and **81**, shown in Figures 5 and 6 are now applied below the plane **50**, and on either side of nose **82**. Thus, the tabs **83** of plane **80** are slipped through the slots **37***a* so that the slot **86** of plane **81** is foremost. This permits retention of the eyes as will hereinafter be explained. It should be observed that the rear edge of planes **80** and **81** is in alignment with line **35**.

At this time, the lower eye socket or horizontal cheek bone indicating planes **90** and **91**, may be applied in alignment with line **36**. Thus, tabs **92** of plane **90** are slipped through slots **38** while tabs **93** of plane **91** are slipped through slots **38***a*. The next step is to apply the eyes **95** and **96** (Figs. 11 and 12). The eyes are also planar and are formed with a central, longitudinal slot **97** and may be provided with a transverse line **98**. The rear of the eye is thus formed with two pieces **99** and **100**, each of which should be bent perpendicularly in opposite directions along the line **98**. These pieces **99** and **100** thus become bracing feet. The eyes are then slipped over the central, horizontal eye socket planes **80** and **81** respectively by inserting the elongated slots **97** into the respective slots **84** and **86** of eye socket planes **80** and **81**. The eyes are pushed inwardly until the feet **99** and **100** rest against plane **30**, foot **99** resting above slots **37** while foot **100** rests below them. This braces the eyes and maintains them in position. It will be observed that the eyes **95** and **96** are formed with outer edge cut-out portions **101**, these representing the eyeballs as will be evident.

It may be noted at this time that some artists or sculptors may prefer not to use the eyes in which case it is considered desirable to support the planes **80**, **81**, **90** and **91** by additional means other than the eye pieces. Accordingly, plane **45** (Fig. 1) is formed with a slot **105** into which the tab support **106** shown in Figure 19, may be inserted to rest immediately below the planes **80** and **81** so as to support them. Likewise a slot **107** formed in plane **45** may receive another tab support **106** to support the lower eye socket planes **90** and **91**.

Thus far, the chin **110** as shown in Figure 1 is but a single vertical plane whereas it may be desirable to add some width thereto for further increasing the versatility of the head form. For this purpose, the elongated strip **111** illustrated in Figure 13, is applied around and under the chin. Thus, strip **111** is first bent along lines **112**, **113** and **114** and the tabs **115** are slipped into two adjoining slots **38** and **38***a*, the same slots wherein two adjacent tabs **92** and **93** were inserted. Central longitudinal slot **116** of tab **111** then embraces plane **45** in the region of the nose and section **117** extends below the planes **90** and **91**. Section **118** then extends from the lower eye socket planes **90** and **91** to the chin as illustrated in the composite view of Figure 24.

It will be observed that the lower portion of slot **116** fits into the front portion of the chin. Section **119** of strip **111** forms the floor of the chin while tabs **120** are inserted into slots **122** (Figure 2) so as to secure strip **111** in position. It will be further noted that slot **121** of strip **111** is inserted into diagonal slot **122** of plane **45** (Figure 1) while the end **123** of slot **116** rests in slot **124** of plane **45** (Figure 1).

The head is now completed, it being noted, however, that the nose **82** is disposed in a single vertical plane. It is often desirable to add some width thereto and for this purpose a nose base **130** (Figure 16) may be employed. Nose base **130** is formed with tabs **131** separated by a central slot **132**. It will be observed that slot **116** (Figure 13) is provided with a transverse slot portion **133**. The tabs **131** are slipped through the slot section **133** so that the trapezoidal shaped section **134** serves as a base for the nose.

It may further be desired to provide width for the nose bridge and in this case, the nose piece **135** is employed instead of nose piece **130**. Nose piece **135** is formed similarly to nose piece **130** save that it is provided with an extension **136** which should be bent along the lines **137** and **138**. The nose piece is inserted as before but the extension **136** is bent upwardly as illustrated in Figure 24 and the slot between end tabs **139** is inserted directly over the top of the nose as illustrated in Figure 24. This maintains the nose base in position.

In Figure 25 is illustrated the insertion of a cheek piece **140** (see Figs. 14 and 15), which with the complementary cheek piece **141**, form simulated cheek areas representing a transverse cross-section of the cheeks. They may be inserted into the jaw cavity illustrated in Figure 4 and their length is such as to cause them to bow slightly and be retained in place by their inherent spring action. Each cheek piece may be provided with cut-outs **142** which permits the element to fit against section **117** of the strip **111**.

In the use of the completed device illustrated in Figures 22 and 25, the student or artist may hold the head form in his hand and rotate it to observe the relative movements of the planes. Inasmuch as the planes are spaced from each other without including solid matter between them, the changes in contours and relationships become very clear as the head is moved or rotated. Thus, when the read is rotated from the position of Figure 20 to that of Figure 24, the vertical sheets or planes **45**, **61** and **62** can be visualized as approaching each other in a very distinct manner. This is very helpful in acquainting the student with the contours of the head in such a position. In the same way, all the other elements of the head

assume corresponding positions. The relationship of the eyes, nose, chin and ears is clearly recognized in various aspects. The line **35** is also of assistance in showing the relationship or slant of the ears with respect to the sides of the head particularly in upwardly or downwardly tipped positions of the head. It has been found that the use of such a device increases the students knowledge of the basic structure of the human head to such an extent that he is soon able to draw caricatures, various head positions or head characteristics of various racial types with surprising accuracy.

As mentioned hereinabove, the head form as illustrated in Figure 24 may be used as an armature or skeleton by filling in the chambers between the planes with a sculpturing or molding substance. Thus, a sculptured head may be produced which will be of excellent accuracy in proportion and will contain the head form therein.

It will be recognized that whereas a large number of elements have been described and illustrated in order to provide the greatest degree of utility, many planes or sections may be omitted when a simpler device is sufficient for particular purposes. Thus, even the provision of the center, front-to-back vertical plane sheet together with the side pieces properly connected thereto, as by the front brow plane **50**, is operative for visualizing the basic vertical planes of the human head in various and changing positions. Other simple combinations may readily suggest themselves to the user. For example, a form comprising merely the front-to-back plane **45** and the side-to-side plane **30** properly connected thereto is of utility. The addition of the front brow horizontal plane **30** thereto may serve as a connection means while further augmenting the utility of the structure.

What is claimed is:

1. A head form for artists comprising a series of vertically disposed sheets spaced from each other to represent various vertical planes of the human head and means connecting said sheets together, the spacing between the sheets being adapted to permit the application of molding material therein.

2. A head form for artists comprising a vertically disposed sheet shaped so as to represent the center, front-to-back vertical plane of the human head and a vertical sheet connected to and extending perpendicularly to said first-named sheet and shaped so as to represent the center, side-to-side vertical plane of the human head, said head form being formed with hollow internal areas between said sheets and opening outwardly of said form and adapted to permit the application of molding material therein.

3. A head form according to claim 2 and wherein said first-named vertical sheet is formed with a nose and said second named vertical sheet is formed with ears.

4. A head form for artists comprising a central, vertically disposed sheet representing the central front-to-back vertical plane of the human head, a nose formed on said vertical sheet, a pair of side pieces on the respective sides of said vertical sheet and spaced therefrom to represent the sides of the human head, a centrally disposed vertical sheet extending perpendicularly to said front-to-back vertical sheet and extending from one side piece to the other to represent the side-to-side, central plane of the human head, and means connecting said vertical sheets and said side pieces together, said vertical sheets and said side pieces forming internal hollow areas opening outwardly of said form and adapted to permit the insertion of molding material therein within the confines of said head form.

5. A device according to claim 4 and a pair of ears formed on respective opposite side edges of said side-to-side vertical sheet.

6. A device according to claim 5 and wherein said side-to-side vertical sheet is formed with an elongated slot for embracing said front-to-back vertical sheet and maintaining said sheets in perpendicular relationship.

7. A head form for artists or the like comprising a central, vertically disposed sheet representing the central front-to-back vertical plane of the human head, a pair of side pieces on the respective sides of said vertical plan sheet and spaced therefrom to represent the sides of the human head, a centrally disposed, side-to-side vertical sheet extending perpendicularly to said front-to-back vertical plane sheet and extending from approximately the center of one side piece to the center of the other, and a horizontal sheet disposed perpendicularly to both the front-to-back vertical plane sheet and the side-to-side vertical sheet and at the front brow level of the head, said vertical sheets, side pieces and horizontal sheet defining between them hollow internal areas opening outwardly of said form and adapted to permit the application of molding material therein.

8. A device according to claim 7 and wherein said front brow level horizontal sheet is connected to said center side-to-side vertical sheet, said connection comprising tabs extending from said brow horizontal sheet through slots formed in said side-to-side vertical sheet.

9. A device according to claim 7 and including horizontal sheet means disposed below said brow horizontal sheet and extending in a plane parallel thereto and spaced therefrom to represent the base of the eye socket in the human head.

10. A device according to claim 9 and including second horizontal sheet means disposed centrally between said brow horizontal sheet and said base of the eye socket horizontal sheet means, said second horizontal sheet means representing the central horizontal eye socket plane of the human head.

11. A series of blanks adapted for interconnection to form a head form for artists use comprising at least three sheets adapted for vertical connection, one of said sheets having the shape of a vertical plane through the human head from the front-to-back thereof so as to include a nose shape, and a pair of side pieces adapted for spaced connection to said plane sheet for representing the sides of the human head.

12. A series according to claim 11 and including a second sheet shaped like a central side-to-side vertical plane of the human head and adapted for connection to said first-named vertical plane sheet, a pair of ears formed on the respective side edges of said side-to-side vertical sheet, and horizontal sheet means adapted for connection to said side-to-side vertical sheet and representing the lower eye socket horizontal plane of the human head.

References Cited in the file of this patent

UNITED STATES PATENTS

2,063,561	Sofo	Dec. 8, 1936
2,289,858	Angrave	July 14, 1942
2,338,738	Rebholz	Jan. 11, 1944