United States Patent [19]

Quinn, III

[11] **3,896,565**

[45] **July 29, 1975**

[54] **FACIAL IDENTIFICATION SYSTEM WITH RELEASABLY ENGAGED COMPONENTS**

[76] Inventor: **William T. Quinn, III,** 681 Park Ave., Freehold, N.J. 07728

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[52] **U.S. Cl.** ..... **35/28;** 35/7 A

[51] **Int. Cl.** **G09b 1/08**

[58] **Field of Search** ..... 35/7 A, 26, 28, 49

[56] **References Cited**

UNITED STATES PATENTS

2,919,502	1/1960	Henry	35/28 X
2,974,426	3/1961	McDonald	35/26

FOREIGN PATENTS OR APPLICATIONS

1,289,292	9/1972	United Kingdom	35/28
423,200	1/1935	United Kingdom	35/28
1,052,668	9/1953	France	35/28
1,137,088	12/1968	United Kingdom	35/28

OTHER PUBLICATIONS

W. R. Hopper, "Photo-Fit-The Penry Facial Identification Technique", J. Forens, Sci. Soc. (1973), pp. 77–82.

Charles Mayer Studios, flyer entitled "Rubber Magnet" copyright 1960, two sides of flyer.

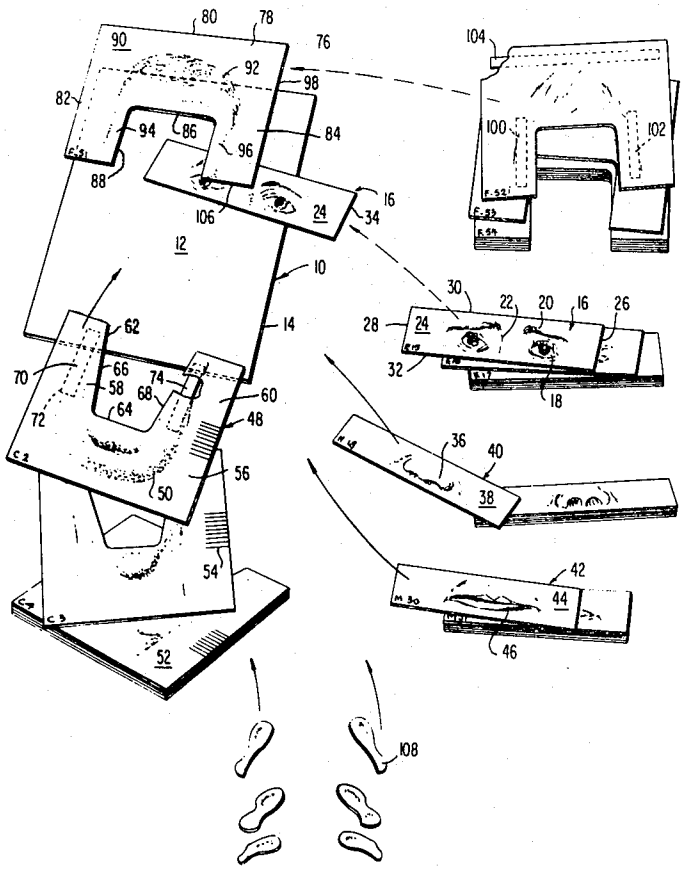
Primary Examiner—Harland S. Skogquist

Attorney, Agent, or Firm—Robert G. McMorrow

[57] **ABSTRACT**

Apparatus for assembly of facial representations from a collection of face components in which identification sections are releasably connected to a backing plate. In a preferred embodiment, the backing plate is formed of a metal to which magnetic materials adhere, and the components are selectively engageable on the plate via magnetic attraction. The components include partially overlapped sections which secure one another in position during inspection and are unlikely to be dislodged. Separable ear representations are employed.

1 Claim, 4 Drawing Figures



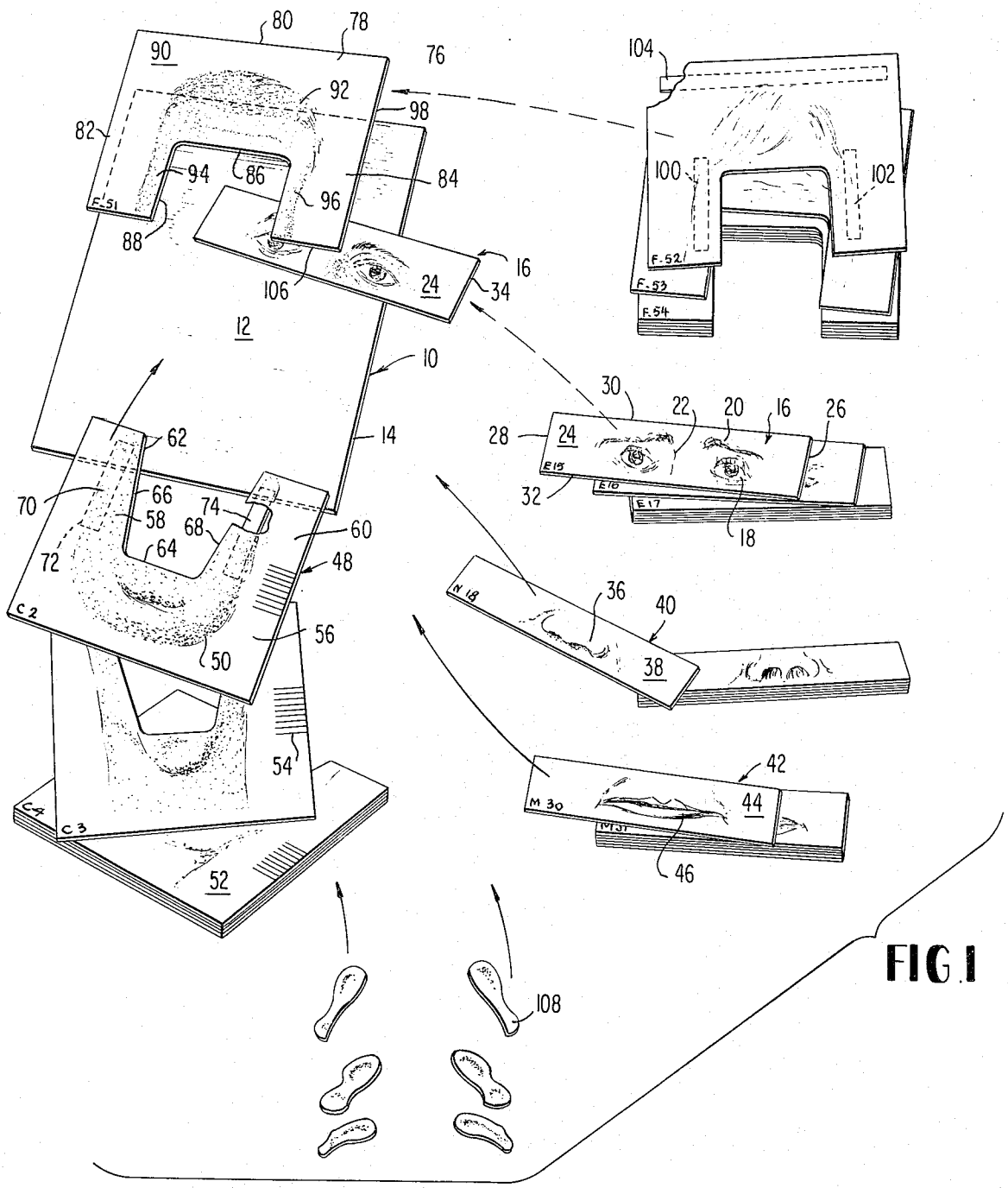
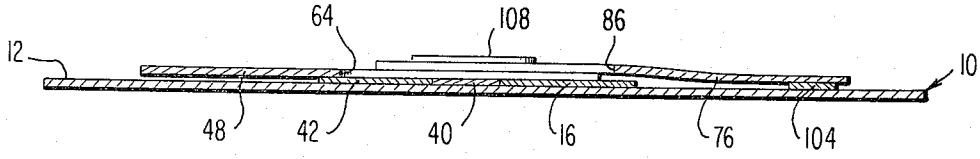

80
78
90
76
104
92
98
82
94
86
84
100
102
96
F.51
88
F.52
F.53
F.54
16
106
24
34
12
10
30
22
20
16
26
28
24
14
62
E15
E16
E17
32
18
70
66
74
58
68
60
72
64
48
36
40
N 18
38
56
50
C2
54
42
M 30
44
C4
C3
46
52
108

FIG. 1

FIG. 3


64
108
86
12
10
48
42
40
16
76
104

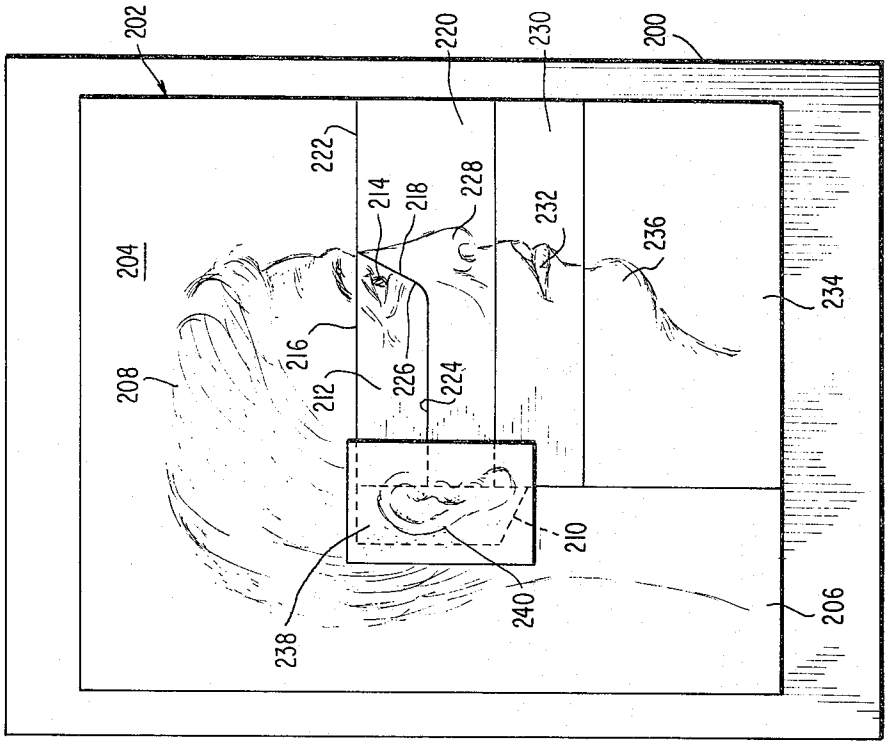

202
220
230
200
222
214
218
228
232
236
204
234
208
216
212
226
224
210
240
238
206

FIG. 4

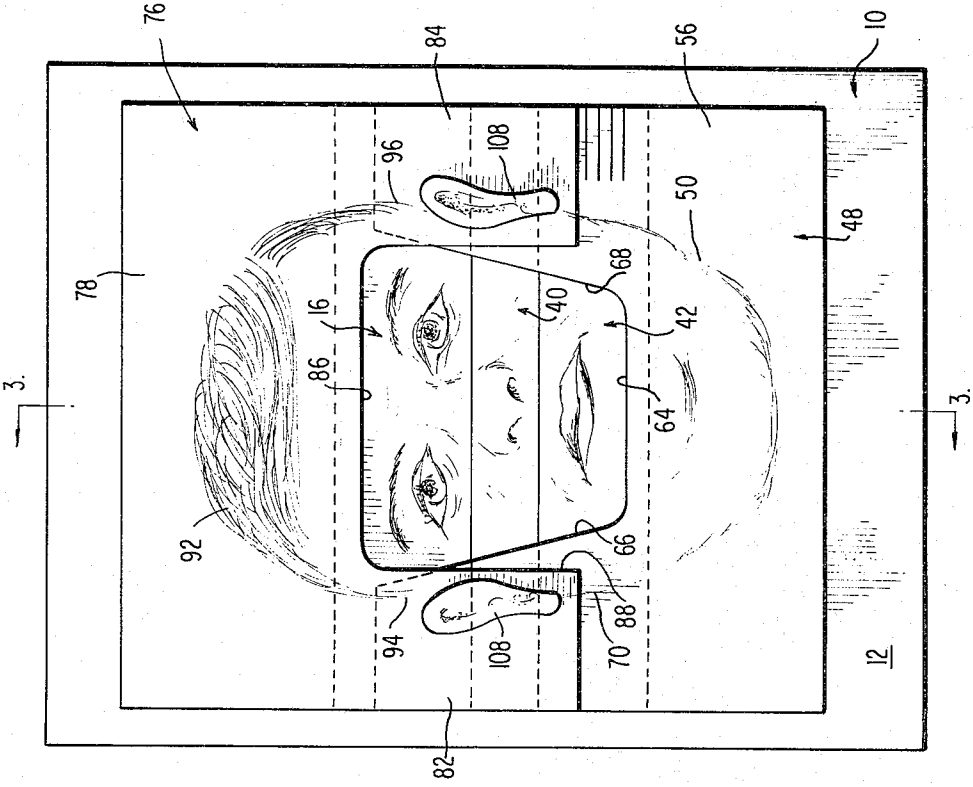

76
84
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3.
3.
92
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94
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70
12
82

FIG. 2

FACIAL IDENTIFICATION SYSTEM WITH RELEASABLY ENGAGED COMPONENTS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention pertains to the assembly of facial representations from component portions, such as used in criminal investigation and like activities.

2. Background of the Prior Art

This invention constitutes a departure from prior methods of facial identification wherein the assembly of components is accomplished through frames, overlays and the like. A similar assembly method is shown in British Patent No. **1,289,292** to W. E. Ryan. In that patent, and an apparatus sold thereunder, facial components derived from photographs are assembled in a hinged frame. Such arrangement, while providing an accurate depiction of faces, has the disadvantage that, often during assembly, the components fall into disarray before or during closing of the form. This has the tendency to confuse witnesses and others, sometimes to the extent that facial recall is permanently lost.

Other prior art known to the applicant includes the below listed patents:

Patentee	Patent Number	Issue Date
Newell, Jr.	1,410,342	Mar. 21, 1922
Levva	1,549,673	Aug. 11, 1925
FitzGerald	2,813,457	Nov. 19, 1957
Smith	3,229,578	Jan. 18, 1966
Minasy	3,336,681	Aug. 22, 1967

SUMMARY OF THE INVENTION

The present invention relates to improved means for the assembling and maintenance during identification of a facial representation from recall. The representation is assembled from sets of components, the components comprising blocks, strips or other forms of a flat, sheet-like characteristic. The sets each include multiple representation of components, preferably comprising artist's renditions of standardized features collected from studies of such features. These are maintained in broadly catagorized sets, e.g., Caucasian, Afro-Asian, or the like, with such categories related to particular features such as size of the specific component. It is known that witnesses to crimes and other human recall of facial features often is keyed to a specific characteristic. Thus, a witness may recall an enlarged nose, the set of the eyes, a protruding chin, etc. The present arrangement permits building from this feature of intense recall, while minimizing the problem of confusion of the witness as a result of presentation of inaccurate or grotesque images.

As indicated above, recall of a witness is often seriously impaired if, during assembly of a composite, the components fall into disarray. This occurs with disturbing frequency with the use of a hinged frame having no means whatsoever to retain the components once placed. In order to obviate this possibility, the present invention provides means for the temporary adhesion of the component forms for a backing so that the components will not become dislodged when temporarily placed. A preferred form of the invention contemplates the use of magnetic materials on the components with

a backing plate of ferrous metal to which the magnetic forms are adhered.

The additional objects and advantages of the invention will become apparent to those skilled in the art from a consideration of the following specification when read in conjunction with the annexed drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a disassembled perspective view illustrating the backing plate and components employed in assembly of a front facial representation;

FIG. 2 is a plan view showing the elements of FIG. 1 in a typical assembly;

FIG. 3 is a sectional view taken on line 3—3 of FIG. 2, looking in the direction of the arrows; and

FIG. 4 is a plan view showing a correlated side profile facial representation.

DESCRIPTION OF THE PREFERRED EMBODIMENT:

Referring to the drawings in more detail, and initially the FIGS. 1–3, a facial identification assembly according to this invention is therein shown. The basic component is a flat backing plate **10** of rectangular form having opposite flat surfaces **12** and **14.** The surface **12** has means for adhesion of the facial components thereto, here the plate being formed of ferrous metal to which magnetic materials adhere. The plate is of a dimension such that the facial representation may be assembled on the surface **12** thereof.

The invention provides sets of strips of material, flexible in nature, of plastic, paper or other material, bearing representations of facial components. Such representations preferably take the form of artists renditions of such components selected from compiled series of standardized characteristics. The series include a set of eye strips **16** which have drawings **18** of eyes and drawings **20** representing eyebrows, with an upper portion **22** of the nose. These representations appear on a top surface **24** of strip **16.** The strip is rectangular and has ends **26, 28** and top and bottom edges **30, 32.** The back surface **34** of the strips is adapted to lie against the surface **12** of the backing plate.

A representation of a nostril main portion **36** appears on the top surface **38** of a nose strip **40.** As is necessary to the function and purpose of the invention, a series or set of strips is provided, each strip bearing different nostril representations. In like manner, a set of mouth strips **42** with top surfaces **44** are supplied. These carry drawings **46** of mouths.

The eye, nose and mouth strips collectively provide a mid-face representation which may be readily varied and the components experimentally interchanged in attempting to achieve a facial likeness. It is intended that, in some identification circumstances, the mid-face portion will be the initial assembly. To this end, the strips **16, 40** and **42** are formed of nonmagnetic material and are movable relative to the backing.

A series of components **48** have lower face representations **50** on their outer surfaces **52.** Also on said outer surfaces are depth measurement indicia **54** of standard location. The components **48** include the main section **56** which bears the lower jowl section of the representations **50,** and side portions **58** and **60** which project therefrom in bifurcated fashion on either side of a central opening **62** which has a base edge **64** and angular side edges **66, 68.** The side portions have facial side

representations **70** thereon. It is an important feature of the invention that the components **48** be adapted for temperary adherence to the backing plate. In furtherance of this purpose, means is provided in association with the components to accomplish this. In the illustrated embodiment of the invention, such means comprise the plurality of strips **72** and **74** of magnetic tape. Such tape is flexible in nature and is provided during manufacture with magnetic particles causing it to adapt the property of adherence to ferrous metals, such as the plate **10.** The magnetic field of the strips is of sufficient magnitude to extend through the strips **16, 40** and **42.** The strips are located on the underside of the component, extending as shown in FIG. **1** along the side portions **58** and **60** in substantially parallel relation to the outer edges thereof.

A series of upper face bearing components **76** is provided for engagement on the plate in partially overlying relation to the component. Each of these comprises substantially rectangular main portion **78** having an end edge **80** and having projecting side portions **82** and **84** arranged oppositely from the edge **80.** These define, with an inner end edge **86,** a central face slot **88.** On the outer surface **90** of the component **76** is a representation **92** of the upper portion of a head, the sides **94, 96** being located on the respective side portions **82, 84.** On the opposite surface **98** of the component **76** a plurality of strips **100, 102** and **104** of magnetic tape are fixedly secured. The strips **100** and **102** extend along the lengthwise extent of the side portions **82** and **84.** The strip **104** is affixed to the surface **98** in closely spaced substantially parallel relation to the end edge **80.**

The component **76,** when initially selected from the series thereof, is positioned as shown in FIGS. **2** and **3** with the edge **86** slightly overlapping the eye strip **16,** and with the side portions **82** and **84** overlapping respective side portions **58** and **60** of the lower face component. The depth of face may be ascertained by reference to the relationship between the lowermost edge **106** of the side portion **84** and the indicia scale **54** on the lower face portion **48.**

Completion of the facial representation involves, uniquely to this invention, the selection from a differentiated series thereof of appropriate ear tabs **108.** The ears are supplied in right and left hand versions, and each has a magnetic backing thereon whereby it is adhered at selected locations over the representation.

As will be observed in the drawings, each component and strip has a code number or letter inscribed thereon. This serves the twofold purpose of establishing an access between a pictorial representation of the facial features of the sets appearing in a compilation or catalog thereof and the item per se, and secondly, the ready composition of a side profile following assembly of the front face view.

In regard to the latter objective, FIG. **4** shows a side profile facial representation according to the invention. Again as in the case of the frontal representation, a backing plate **200** is provided. A head or neck form **202** of substantially inverted L-shape having a foot element **204** and a depending leg element **206** which is provided on its outer surface with representation **208** of a forehead and rear neck. At the juncture of the foot and leg elements, a cutout **210** is formed. The head and neck form **202** has the magnetic strips not shown on its inside surface for temporary adherence to the plate **200.**

A series of eye strips **212** having eye representations **214** thereon sit against the foot element **204** along the top edge **216** thereof. The eye strips have an angular leading edge **218.** A series of nose strips **220** have a stepped top edge **222, 224** with an angular connecting portion **226** which bears against the leading edge **218** of the eye strip. A nose and upper cheek drawing **228** appears on each strip **220** on the outer surface thereof, and a magnetic strip not shown, is connected to its opposite side.

The composition of the side profile also involves the use of a series of mouth strips **230** with drawings of mouth and lower face portions **232** thereon. Also chin section blocks **234,** with drawings **236,** abut the strip **230** and the leg portion **206.**

These strips are also provided with magnetic materials for adhesion to the plate.

In completion of the side view of the face, an ear member **238** with an ear drawing **240** is provided and is positioned, via a magnetic strip affixed thereto over the cutout **210.**

It will be observed in the drawing that the side facial representation also has reference indicia thereon at various locations. Comparison of FIGS. **2** and **4** will show that these indicia are the same for corresponding portions of the representation. It is thus contemplated that, in the use of this invention, assembly of either a front facial representation or a side profile representation will result in the ability of the operator to immediately compose a corresponding view by the use of the same reference indicia.

While the foregoing has dealt principally with magnetic adhesion of the components to the backing plate, it will be understood that the invention contemplates other and different means of temporary connection.

I claim:

1. In an apparatus for the assembly of correlated front and side facial representations based upon recall, in either order, the apparatus being of the type wherein plural components are arranged in an order to permit selection of recalled characteristics and interchange of components, the improvement comprising: respective backing plates for frontal and side facial components, each plate being of a dimension sufficient to accommodate an assembled facial representation on one surface thereof; each plate being formed of magnetic material; a series of non-magnetic facial component bearing strips, including a plurality of eye strips, a plurality of nose strips and a plurality of mouth strips, selected combinations of said strips being alignable on the surface of each backing plate to form a mid-face representaion; a series of lower face bearing components selectively engageable on the frontal facial backing plate, said lower face bearing components having a main section bearing the jowl portion of the face and having side portions bearing facial side representations; said lower face bearing components having magnetic strips on the side facing the plate supporting the same, on those portions overlying said non-magnetic facial component bearing strips, and being adhered magnetically to the plate in partial overlapping relation to the facial component bearing strips; a series of upper face bearing components selectively engageable on said frontal facial plate, the upper face bearing components having an upper portion bearing a forehead and hair or scalp representation, and having depending side portions extendable over said side portions of the lower face bear-

ing component; the upper face bearing components having magnetic strips on the side facing said plate, along said side portions, with the side portions being adhered magnetically to the plate in partially overlapping relation to the facial component bearing strips and the lower face bearing component side portions; and a series of ear representation members, said ear representation members being magnets and being adhered magnetically in selective position on the depending side portions of the upper face bearing component; whereby, said magnetic strips bearing said non-magnetic facial component bearing strips maintain said strips in proper alignment and in position on said underlying plate, and said ear representation members being held magnetically in position on said depending side portions of the upper face bearing components by magnetic attraction extending therethrough between said magnet ear representation members and said underlying magnetic plate, said side facial plate being likewise formed of magnetic material, and said apparatus further including a series of substantially L-shaped head and neck bearing forms, the head representation being located substantially on a first portion of the form and the neck on a second, perpendicular portion thereof; the forms being magnetic and being magnetically adhered to the side facial plate selectively, a series of eye representation bearing strips for said side facial backing plate, each having an upper side edge adapted for abutment against the first portion of the form, a slant forward edge, and a lower edge; a series of mid-face and nose bearing forms for said side facial plate, each having a first upper edge abutted against the lower edge of the eye representation strip, a slant mid-edge abutted against the slant forward edge of the eye representation strip, and a lower edge; a series of mouth representation bearing strips for said side facial plate with the upper edges of said mouth representation bearing strips engageable with the lower edges of the mid-face and nose forms, and a lower edge; and a series of lower jowl and neck bearing blocks for said side facial plate, said blocks each having an upper edge adapted for abutment against a lower edge of the mouth representation bearing strips; at least the lower jaw and neck bearing blocks being magnetically adhered to the side facial plate; and a series of ear members selectively magnetically adhered to the plate in a selected position relative to the representation and wherein corresponding frontal and side; chin, lip, eye, ear, mouth and upper and lower face bearing components, respectively, having correlated indicia thereon to permit the instantaneous composition of a side facial representation after completion of a frontal facial representation and vice versa.

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