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Industria y Comercio
SUPERINTENDENCIA

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
INVENTARIO
PCT

PATENTE DE INVENCION

EXPEDIENTE No.

08-29827

Contiene los documentos relativos a la solicitud de registro de:

Título : DISPOSITIVO PARA EL DISEÑO DE PEINADOS.

Clase : de la Clasificación Internacional de Niza

Solicitante : MOURAD JOSEPH

De : AUSTRALIA

Apoderado : MAURICIO JARAMILLO

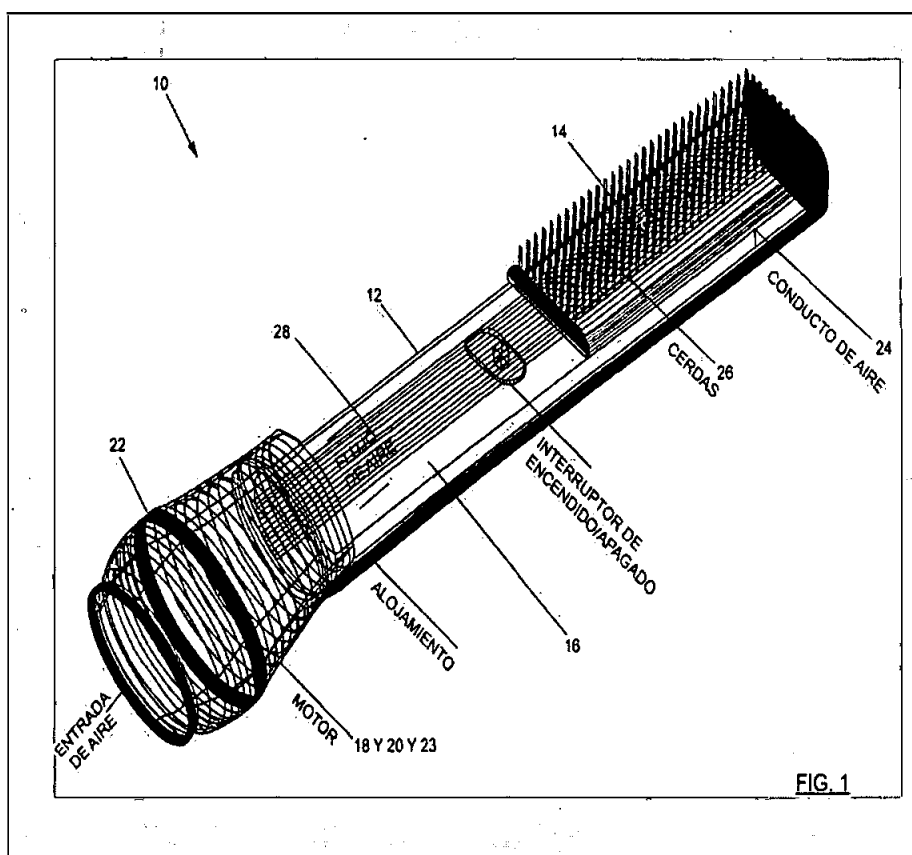
Bogotá, D.C., Marzo de 2003

⑩

Anexos

- ☒ Comprobante de pago de la tasa de presentación de la solicitud
- ☐ Documento que acredite la existencia y representación legal cuando el solicitante sea persona jurídica
- ☐ Poderes, si fuere el caso
- ☐ Documento de cesión del inventor al solicitante o a su causante
- ☐ Declaraciones
- ☒ Copia de la solicitud internacional (resumen, descripción, reivindicaciones, dibujos)
- ☒ Traducción simple de la primera solicitud, si se reivindica prioridad
- ☒ Copia del examen preliminar internacional efectuado por la Autoridad Internacional de Examen Preliminar (IPEA)
- ☐ Traducción del examen preliminar internacional efectuado por la IPEA
- ☐ De ser el caso, copia del contrato de acceso
- ☐ De ser el caso, documento que acredite la licencia o autorización de uso de conocimientos tradicionales de las comunidades indígenas
- ☐ De ser el caso, certificado de depósito del material biológico
- ☒ Arte final 12 x 12
- ☒ De ser el caso, información sobre otras solicitudes de patente o títulos en el extranjero por el mismo titular o su causante, relacionadas parcial o totalmente con la invención de esta solicitud
- ☐ De ser el caso, modificaciones efectuadas a la solicitud internacional

⑪ FIGURA CARACTERISTICA:



⑫ solicito la concesión de la patente

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FIRMA:

C.C. 80.421.942 de Usaquén T.P. 74.555 C.S.J.

Instrucciones para el diligenciamiento del presente formulario, ver reverso de esta página.

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(54) Título: DISPOSITIVO PARA EL DISEÑO DE PEINADOS	

RESUMEN

La presente invención proporciona un dispositivo para el diseño de peinados (10) que comprende un brazo alargado (12) que tiene una superficie de recepción del cabello (14). Dentro del brazo (12) existe un pasaje de aire (16) que lleva aire inyectado en él por un ventilador (18). El pasaje de aire (16) tiene una salida de aire alargada (24) que se encuentra paralela al brazo (12). La salida de aire (24) se configura para soplar aire a lo largo de la longitud del cabello. Unidos a la superficie de recepción del cabello (14) se encuentran las cerdas (26) para formar un cepillo.

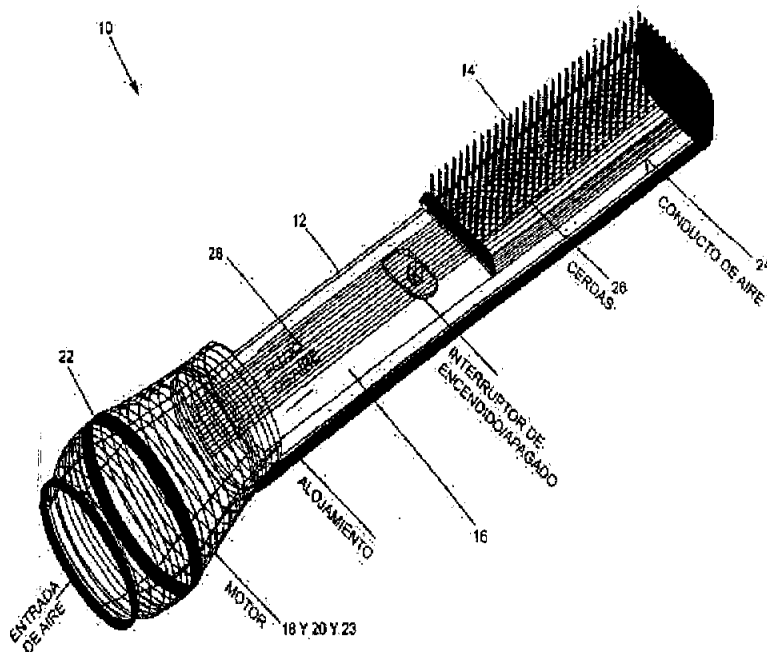


FIG. 1

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



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***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PAGO	Vr. PAGO
GOMEZ PINZON ASEHARCAS	CONSIGNACION	BANCO DE BOGOTA	062754387	503930	26/03/2008	501,000.00

***** CONCEPTO *****

CANT. RECIBISTICO	CONCEPTO	TOTAL CONCEPTO
1 50005-01-01 SOLICITUDES	1 TRAMITES DE SOL. DE PATENTE DE IN	501,000.00
	TOTAL	\$ 501,000.00

SON: QUINIENTOS UN MIL PESOS

RESPONSABLE :

RECIBO DE CAJA APLICADO AL EXPEDIENTE No.

DISPOSITIVO PARA EL DISEÑO DE PEINADOS

CAMPO DE LA INVENCION

La presente invención se refiere ampliamente a un dispositivo para el diseño de peinados.

5 ANTECEDENTES DE LA INVENCION

El diseño de peinados con frecuencia requiere el secado del cabello mojado o húmedo. Esto se hace tradicionalmente dirigiendo aire caliente proveniente de una secadora por chorro de aire comprimido sobre el cabello. Sin embargo, este proceso da al cabello una textura encrespada que no es compatible con muchos diseños de peinados deseables.

El cabello encrespado puede evitarse un poco mediante la aplicación de un cepillado al cabello mientras el cabello se seca con secadora de aire. Además la combinación de un cepillo y secadora de aire puede lograr una variedad notable de diseños de peinados deseable. Sin embargo, lograr alta calidad de diseños de peinados con el uso simultáneo de un cepillo para el cabello y una secadora de aire requiere un operador experto. Esto puede tomar muchos años de entrenamiento antes de que el operador pueda lograr un nivel de experiencia satisfactorio.

Un diseño de peinado que es particularmente difícil de lograr utilizando la combinación de cepillo y secadora de aire es alisar y aplanar el cabello. Para lograr este

estilo, algunos estilistas profesionales utilizan técnicas químicas de alisado del cabello, tales como "Alisado Japonés del cabello". Sin embargo se entenderá, que este es un proceso costoso, permanente que toma muchas horas y puede dar
5 como resultado el daño al cabello.

Otros estilistas utilizan planchas para cabello también conocidas como planchas para alisado o tenazas para el cabello, las cuales pueden utilizarse para alisar el cabello temporalmente. Las planchas para cabello cambian la
10 estructura del cabello al presionar el cabello entre dos superficies de planchas calientes. Algunas planchas para cabello se aplican al cabello después de la secadora de aire. Otras se aplican al cabello húmedo

SUMARIO DE LA INVENCION

15 De acuerdo con un aspecto de la invención se proporciona un dispositivo para el diseño de peinados que comprende:

un brazo alargado que tiene una superficie para recibir el cabello que se extiende a lo largo de al menos
20 parte del brazo;

un pasaje de aire acoplado al brazo y que se encuentra en comunicación fluida con una salida de aire alargada asociada con la superficie de recepción del cabello, estando colocada la salida de aire alargada sustancialmente
25 paralela al brazo y configurada para soplar aire

sustancialmente a lo largo de la longitud del cabello; y

medios de cepillo unidos al brazo o adyacentes a la superficie de recepción del cabello.

De acuerdo con otro aspecto de la invención se
5 proporciona un dispositivo para el diseño de peinados que comprende:

un par de tenazas que incluyen dos brazos alargados que son cerrables con respecto entre sí, teniendo cada uno de los brazos una superficie de recepción del cabello;

10 un elemento de calentamiento conectado a una de las superficies de recepción del cabello;

un pasaje de aire acoplado a al menos uno de los brazos y estando en comunicación fluida con una salida de aire asociada con la superficie de recepción del cabello de
15 ese brazo;

medios de calentamiento de aire acoplados de manera operativa al pasaje de aire para calentar el aire soplado a través del pasaje y que sale por la salida de aire alargada;
y

20 medios de cepillo unidos a al menos uno de los brazos o adyacentes a la superficie de recepción del cabello.

Preferentemente el dispositivo para el diseño de peinados incluye un ventilador operativamente acoplado al pasaje de aire para soplar aire a través del pasaje de aire y
25 la salida de aire. Más preferentemente el ventilador se

instala en una caja de ventilador rígidamente unida a uno o más brazos. Alternativamente el ventilador se instala en una caja de ventilador conectada a un tubo flexible que es una continuación del pasaje de aire.

5 Preferentemente el dispositivo incluye un calentador de aire operativamente acoplado al pasaje de aire. Más preferentemente el calentador de aire se instala en la caja de ventilador.

10 Preferentemente los medios de cepillo incluyen una o más filas de cerdas planas. Alternativa o adicionalmente los medios de cepillo incluyen un cepillo instalado de manera giratoria, estando acoplado el cepillo a medios de motor para accionar el cepillo en un movimiento circular.

15 Preferentemente la una o más superficies de recepción del cabello son resortes cargados con relación a sus brazos respectivos.

Preferentemente los brazos alargados se desvían o impulsan lejos uno de otro hacia una posición abierta.

20 Preferentemente el dispositivo para el diseño de peinados es de un diseño modular que incluye un mango en el cual se conectan de manera desprendible el brazo alargado o par de tenazas.

25 Preferentemente el dispositivo para el diseño de peinados incluye baterías para energizarlo. Alternativamente el dispositivo para el diseño de peinados se adopta para

energizarse por energía de conductores eléctricos.

BREVE DESCRIPCIÓN DE LAS FIGURAS

A fin de lograr un mejor entendimiento de la naturaleza de la presente invención, se describirán ahora
5 varias modalidades preferidas del dispositivo para el diseño de peinados, a manera solo de ejemplo, con referencia a las figuras acompañantes en las cuales

La Figura 1 muestra una vista en perspectiva de una modalidad del dispositivo para el diseño de peinados;

10 La Figura 2 muestra una vista en planta del dispositivo para el diseño de peinados de la Figura 1;

La Figura 3 muestra una vista en perspectiva de otra modalidad de un dispositivo para el diseño de peinados;

15 La Figura 3a muestra una vista elevacional y en sección transversal de otra modalidad de un dispositivo para el diseño de peinados, similar a la modalidad de la Figura 3.

La Figura 4 muestra algunas de las partes componentes del dispositivo para el diseño de peinados de la Figura 3;

20 Las Figuras 5 a 12 muestran varias otras modalidades de un dispositivo para el diseño de peinados, siendo las modalidades similares a la modalidad de la Figura 3;

25 La Figura 13 muestra otra modalidad de un dispositivo para el diseño de peinados en donde la caja de

ventilador se conecta a los brazos mediante un tubo flexible;

La Figura 14 es una vista en perspectiva en acercamiento de los brazos del dispositivo para el diseño de peinados de la Figura 13;

5 La Figura 15 es una vista en perspectiva en acercamiento de la caja de ventilador del dispositivo para el diseño de peinados de la Figura 13;

La Figura 16 es una vista en perspectiva de una modalidad de un dispositivo para el diseño de peinados en
10 uso;

La Figura 17 es una hoja de especificaciones de una modalidad de un dispositivo para el diseño de peinados; y

La Figura 18 es la continuación de la hoja de especificaciones de la Figura 17.

15 **DESCRIPCIÓN DETALLADA DE LAS MODALIDADES PREFERIDAS**

Una modalidad de un dispositivo para el diseño de peinados se muestra en las figuras 1 y 2 y generalmente se indica como 10. El dispositivo para el diseño de peinados 10 tiene un brazo alargado 12 que tiene una superficie de
20 recepción del cabello 14 plana y generalmente rectangular que se extiende a lo largo de parte del brazo 12. La superficie de recepción del cabello 14 puede hacerse de cerámica o de un metal tal como aluminio o de plástico. Dentro del brazo 12 existe un pasaje de aire 16 que lleva aire inyectado en él
25 mediante un ventilador 18 accionado por un motor eléctrico

20. En esta modalidad el ventilador 18 y el motor 20 se instalan en una caja de ventilador 22 rígidamente unida al brazo 12, incluyendo también la caja de ventilador 22 elementos de calentamiento 23 para calentar el aire.

5 Sin embargo, en algunas otras modalidades, la caja de ventilador se separa del brazo 12 pero se conecta al brazo 14 mediante un tubo flexible que es una continuación del pasaje de aire 16.

El pasaje de aire 16 tiene una salida de aire
10 alargada 24 que se encuentra paralela al brazo 12 y se extiende a lo largo del lado de la superficie de recepción del cabello 14. La salida de aire 24 se configura para soplar aire a través de la superficie de recepción del
15 cabello 14 y así sustancialmente a lo largo de la longitud del cabello colocado perpendicular al brazo 12 y sobre la superficie 14. Unidas a la superficie de recepción del
20 cabello 14 se encuentran las cerdas 26 para formar un cepillo, aunque en algunas modalidades las cerdas 26 pueden colocarse a lo largo de un borde de la superficie 14. Las
cerdas pueden hacerse de nylon, alambre, metal, cobre, hueso, plástico, aluminio, cerdas puras o cualquier otro tipo de
cerdas. En algunas modalidades no ilustradas en la presente, el cepillo se instala de manera giratoria sobre el brazo 12 y se acopla a un motor eléctrico para accionar el cepillo en un
25 movimiento circular. El cepillo es redondo pero puede ser de

otra forma tal como cuadrada. Esto ayudaría a la tensión del cabello.

El dispositivo para el diseño de peinados 10 es de un diseño modular e incluye un mango o asidero 28.

5 Esta modalidad del dispositivo para el diseño de peinados se energiza por conductores eléctricos, sin embargo puede energizarse alternativamente por baterías.

Otra modalidad del dispositivo para el diseño de peinados se muestra en la Figura 3 y generalmente se indica
10 como 30. El dispositivo para el diseño de peinados 30 tiene un par de tenazas que incluyen dos brazos alargados 32 y 34 que son cerrables con respecto uno de otro. Los brazos 32 y 34 se desvían o impulsan lejos uno de otro en una posición abierta. Cada brazo tiene una superficie de recepción del
15 cabello generalmente rectangular 36 y 38. La superficie puede construirse por ejemplo, de cerámica, aluminio o titanio. Una o ambas superficies de recepción del cabello 36 y 38 se calientan por un elemento de calentamiento 40 conectado directamente bajo la superficie de recepción del
20 cabello 36. Dentro del brazo 32 existe un pasaje de aire 42 que lleva aire inyectado en él mediante un ventilador 44 accionado por un motor eléctrico 46. El ventilador 44 y motor 46 se instalan en una caja de ventilador 48 unida a los brazos 32 y 34, la caja de ventilador 48 también incluye
25 elementos de calentamiento 50 para calentar el aire.

12

El pasaje de aire 42 tiene una salida de aire alargada 52 la cual se encuentra paralela al brazo 32 y se extiende a lo largo del lado de la superficie de recepción del cabello 36. La salida de aire 52 se configura para soplar aire a través de la superficie de recepción del cabello 36 y así sustancialmente a lo largo de la longitud del cabello colocado perpendicular al brazo 32 sobre la superficie 36. Unidas a las superficies de recepción del cabello 36 y 38 se encuentran las cerdas 43 para formar un cepillo, aunque en algunas modalidades las cerdas pueden colocarse de manera alternativa a lo largo de un borde de las superficies 36 y 38. En algunas modalidades, el cepillo de instala de manera giratoria sobre el brazo 12 y se acopla a un motor eléctrico para accionar el cepillo en un movimiento circular. Esto ayudaría a la tensión del cabello.

Las superficies de recepción del cabello 36 y 38 son resortes cargados con relación a sus brazos respectivos 32 y 34 para aplicar presión al cabello colocado entre las superficies 36 y 38 antes de que se cierren completamente. Existen aproximadamente 2 mm de avance disponible en cada superficie.

Esta modalidad de un dispositivo para el diseño de peinados se energiza por conductores eléctricos, sin embargo puede energizarse de manera alternativa por baterías. El dispositivo para el diseño de peinados es de un diseño

modular e incluye un mango o asidero 53 al cual se conecta de manera desprendible el brazo 12 o tenazas. La Figura 4 muestra algunos de los componentes del dispositivo para el diseño de peinados de la Figura 3.

5 Otra modalidad de un dispositivo para el diseño de peinados, similar a la modalidad de la Figura 3, se muestra en la Figura 3a y se indica como 31. Las características en la Figura 3a que son comunes en función a las características en la Figura 3 se han numerado de forma idéntica. La
10 configuración de la salida de aire alargada 52 se muestra en la sección A-A de la Figura 3a. El aire que sale de la salida de aire alargada 52 se desvía por un refuerzo 53 a través de las superficies de recepción del cabello 36 y 38 como se indica por las líneas de flujo de aire. Una
15 característica distintiva de la modalidad de la Figura 3a es que los elementos de calentamiento de aire 50 se localizan dentro de los brazos 32 y 34. Otra característica distintiva es que las cerdas se instalan sobre una banda desprendible que corre a lo largo de un lado de las superficies de
20 recepción del cabello 36 y 38. El dispositivo para el diseño de peinados tiene un cordón para energía 33 para conectarlo a la energía de los conductores eléctricos.

Las Figuras 5 a 12 muestran otras modalidades de un dispositivo para el diseño de peinados similar al mostrado en
25 las Figuras 3 y 4. Los numerales de referencia utilizados

corresponden con las partes listadas el ese dibujo.

La Figura 13 muestra otra modalidad del dispositivo para el diseño de peinados indicado en general como 60. En esta modalidad la caja de ventilador 62 que contiene el ventilador, el motor y el elemento de calentamiento se separa de los brazos 64 y 66 pero se conecta a los brazos 64 y 66 mediante un tubo flexible 68 para transportar el aire calentado. La Figura 14 muestra un dibujo más detallado de los brazos 64 y 66. La Figura 15 muestra un dibujo más detallado de la caja de ventilador 62, la cual se conecta a la energía de los conductores eléctricos mediante un cable de energía 70.

La Figura 16 muestra una modalidad de un dispositivo para el diseño de peinados 80 de la invención en uso. El cabello 81 se coloca entre las superficies de recepción del cabello 82 y 84 y los brazos 86 y 88 se cierran entre si para sujetar el cabello. El dispositivo para el diseño de peinados se mueve entonces a lo largo del cabello tensionado 82, en una dirección generalmente lejos del cuero cabelludo 90. La dirección del flujo de aire es generalmente también lejos del cuero cabelludo 90. De forma importante, el flujo de aire se dirige sustancialmente a lo largo de la longitud del cabello lejos del cuero cabelludo 90.

Las Figuras 17 y 18 son hojas de especificaciones para una modalidad de un dispositivo para el diseño de

peinados de acuerdo con la invención.

Se apreciará por personas expertas en la materia que pueden hacerse numerosas variaciones y/o modificaciones a la invención como se muestra en las modalidades específicas sin apartarse del espíritu y alcance de la invención como se describe ampliamente. Por ejemplo las superficies de recepción del cabello pueden no ser una placa de alisamiento sino un placa de aterciopelado, una placa de onda profunda o una placa de micro-rizado para rizar, plisar, curvar, ondular, hacer en espiral o alisar el cabello. Adicionalmente, pueden existir medios para aplicar protectores térmicos tales como loción para proteger el cabello durante el tratamiento o algún otro producto para el cabello. Los medios de cepillo pueden estar en la forma de elementos de peine relativamente rígidos en lugar de las cerdas descritas. Las presentes modalidades deben por lo tanto considerarse en todos los aspectos como ilustrativas y no restrictivas.

Especificación - Aparato Diseñador de peinados

ANEXO 1 (Referencia a la Figura 17)

1. General

Un dispositivo eléctrico operado por conductores eléctricos propuesto para combinar la función de secadora para el cabello, cepillo para el cabello y placas calientes para diseños de peinados. La apariencia y tacto total de la

unidad es para ser de alta calidad sin bordes agudos o sujetadores visibles.

2. Eléctrico

5 2.1. Capaz de fabricarse tanto en las versiones de especificación de E. U., (110V, 60 Hz) como la especificación de Australia/Reino UNido (220-240V, 50Hz).

2.2. Doble aislamiento

2.3. Consumo de energía total = 1800W Max

10 2.4. Motor del ventilador, motor DC recomendado encapsulado, tipo de imán permanente,.

2.5. Protección de sobrecarga térmica requerida en cada placa caliente así como en el elemento de calentamiento de aire.

15 2.6 Controles de aire caliente, 3 graduaciones como se lista en la presente.

2.6.1. Sin flujo de aire, i.e. apagado

2.6.2. Ventilador de velocidad completa, 50% de calentamiento de aire.

20 2.6.3. Ventilador de velocidad completa, 100% de calentamiento de aire (temperatura del aire de salida 100 Grados C min)

25 2.7. Controles de calor de placa caliente independientes de los controles anteriores son simplemente de encendido y apagado. La temperatura de la

superficie de trabajo de la placa caliente es 160 grados C min.

2.8. 2 Elementos de calentamiento de aire requeridos, uno en cada "tenaza".

5 2.9. Los elementos de calentamiento de aire no deben energizarse a menos que el ventilador se encuentre funcionando.

3. Mecánico

3.1. Peso total máximo = 750 g

10 3.2. Las dimensiones totales referidas en los dibujos.

3.3. Las tenazas deben ser cargadas por resorte para abrirse en el ángulo especificado.

15 3.4. Los controles deben ranurarse de tal forma que la graduación del interruptor no pueda cambiarse de forma inadvertida.

3.5. Todas las superficies externas son lisas.

ANEXO 2 (Referencia a la Figura.18)

4. Configuración de la Tenaza

20 4.1. Cada una de las dos tenazas deben tener 4 componentes activos en ella. Nótese que la posición de estos componentes, con relación entre si se observa como crítica y se muestra en el diagrama acompañante:

25 4.1.1. Elemento de calentamiento de aire situado dentro del conducto como se muestra en el diagrama.

18

4.1.2. Una placa caliente cargada por resorte. La carga por resorte es necesaria a fin de aplicar presión al cabello entre las placas antes de que se cierren completamente. Las placas calientes necesitan ser capaces de moverse aproximadamente 1-2 mm.

4.1.3. Bandas de cepillo reemplazables. Estas bandas se desgastarán con el uso y por lo tanto deben reemplazarse.

4.1.4. Un conducto largo, angosto, curvo incorporado en el alojamiento a fin de dirigir al aire caliente hacia la placa caliente adyacente. Referirse al diagrama.

REIVINDICACIONES

1. Un dispositivo para el diseño de peinados que comprende:

un brazo alargado que tiene una superficie para
5 recibir el cabello que se extiende a lo largo de al menos parte del brazo;

un pasaje de aire acoplado al brazo y que se encuentra en comunicación fluida con una salida de aire alargada asociada con la superficie de recepción del cabello,
10 estando la salida de aire alargada dispuesta sustancialmente paralela al brazo y configurada para soplar aire sustancialmente a lo largo de la longitud del cabello; y

medios de cepillo unidos al brazo o adyacentes a la superficie de recepción del cabello.

15 2. Un dispositivo para el diseño de peinados que comprende:

un par de tenazas que incluyen dos brazos alargados que son cerrables con respecto uno del otro, teniendo cada uno de los brazos una superficie de recepción del cabello;

20 un elemento de calentamiento conectado a al menos una de las superficies de recepción del cabello;

un pasaje de aire acoplado a al menos uno de los brazos y que se encuentra en comunicación fluida con una salida de aire asociada con la superficie de recepción del
25 cabello de ese brazo;

medios de calentamiento de aire acoplados de manera operativa al pasaje de aire para calentar el aire soplado a través del pasaje y que sale por la salida de aire alargada; y

5 medios de cepillo unidos a al menos uno de los brazos o adyacentes a la superficie de recepción del cabello.

3. Un dispositivo para el diseño de peinados como se reivindica en cualquiera de las reivindicaciones 1 o 2 que comprende también un ventilador acoplado de manera operativa
10 al pasaje de aire para soplar aire a través del pasaje de aire y la salida de aire.

4. Un dispositivo para el diseño de peinados como se reivindica en la reivindicación 3 en donde el ventilador se instala en una caja de ventilador rígidamente unida a uno
15 o más brazos.

5. Un dispositivo para el diseño de peinados como se reivindica en la reivindicación 3 en donde el ventilador se instala en una caja de ventilador conectada a un tubo flexible el cual es una continuación del pasaje de aire.

20 6. Un dispositivo para el diseño de peinados como se reivindica en cualquiera de las reivindicaciones precedentes que comprende también un calentador de aire operativamente acoplado al pasaje de aire.

7. Un dispositivo para el diseño de peinados como
25 se reivindica en cualquiera de las reivindicaciones 5 o 6 en

donde al calentador de aire se instala en ya sea la caja de ventilador o el uno o más brazos.

8. Un dispositivo para el diseño de peinados como se reivindica en cualquiera de las reivindicaciones
5 precedentes en donde los medios de cepillo incluyen una o más filas de cerdas planas.

9. Un dispositivo para el diseño de peinados como se reivindica en cualquiera de las reivindicaciones precedentes en donde los medios de cepillo incluyen un
10 cepillo instalado de forma giratoria, estando acoplado el cepillo a medios de motor para accionar el cepillo en un movimiento circular.

10. Un dispositivo para el diseño de peinados como se reivindica en cualquiera de las reivindicaciones
15 precedentes en donde la una o más superficies para recibir el cabello se encuentran cargadas por resorte en relación a sus brazos respectivos.

11. Un dispositivo para el diseño de peinados como se reivindica en la reivindicación 2 en donde los brazos
20 alargados se desvían o impulsan lejos uno de otro en una posición abierta.

12. Un dispositivo para el diseño de peinados como se reivindica en la reivindicación 4 siendo de un diseño modular en donde el brazo alargado o par de tenazas se
25 conectan de manera desprendible a la caja de ventilador.

21

13. Un dispositivo para el diseño de peinados como se reivindica en cualquiera de las reivindicaciones precedentes que se adapta para energizarse por batería.

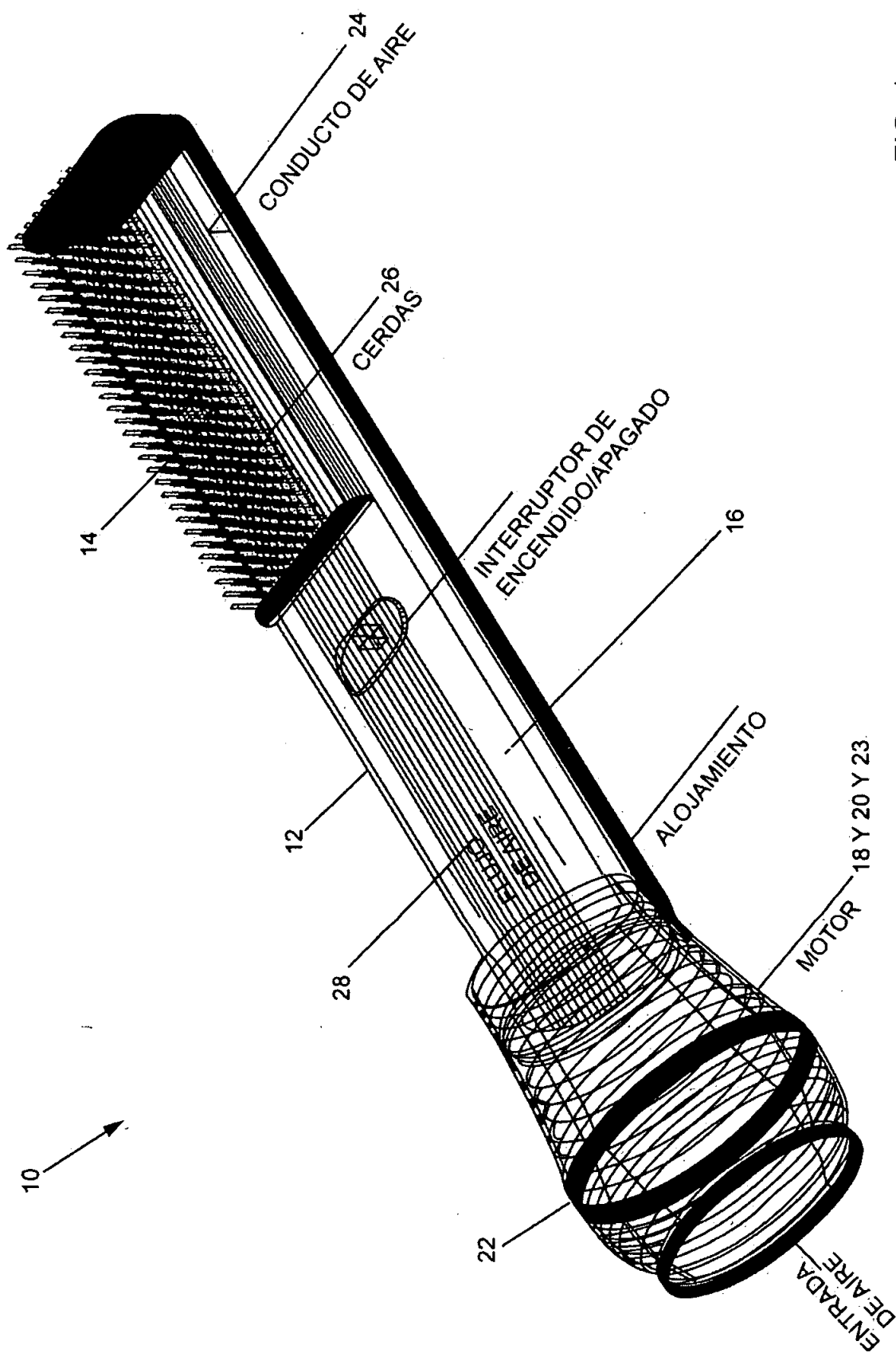
14. Un dispositivo para el diseño de peinados como
5 se reivindica en cualquiera de las reivindicaciones 1 a 12 que se adapta para energizarse por conductores eléctricos.

22

RESUMEN

La presente invención proporciona un dispositivo para el diseño de peinados (10) que comprende un brazo alargado (12) que tiene una superficie de recepción del
5 cabello (14). Dentro del brazo (12) existe un pasaje de aire (16) que lleva aire inyectado en él por un ventilador (18). El pasaje de aire (16) tiene una salida de aire alargada (24) que se encuentra paralela al brazo (12). La salida de aire (24) se configura para soplar aire a lo largo de la longitud
10 del cabello. Unidos a la superficie de recepción del cabello (14) se encuentran las cerdas (26) para formar un cepillo.

23



24

2/19

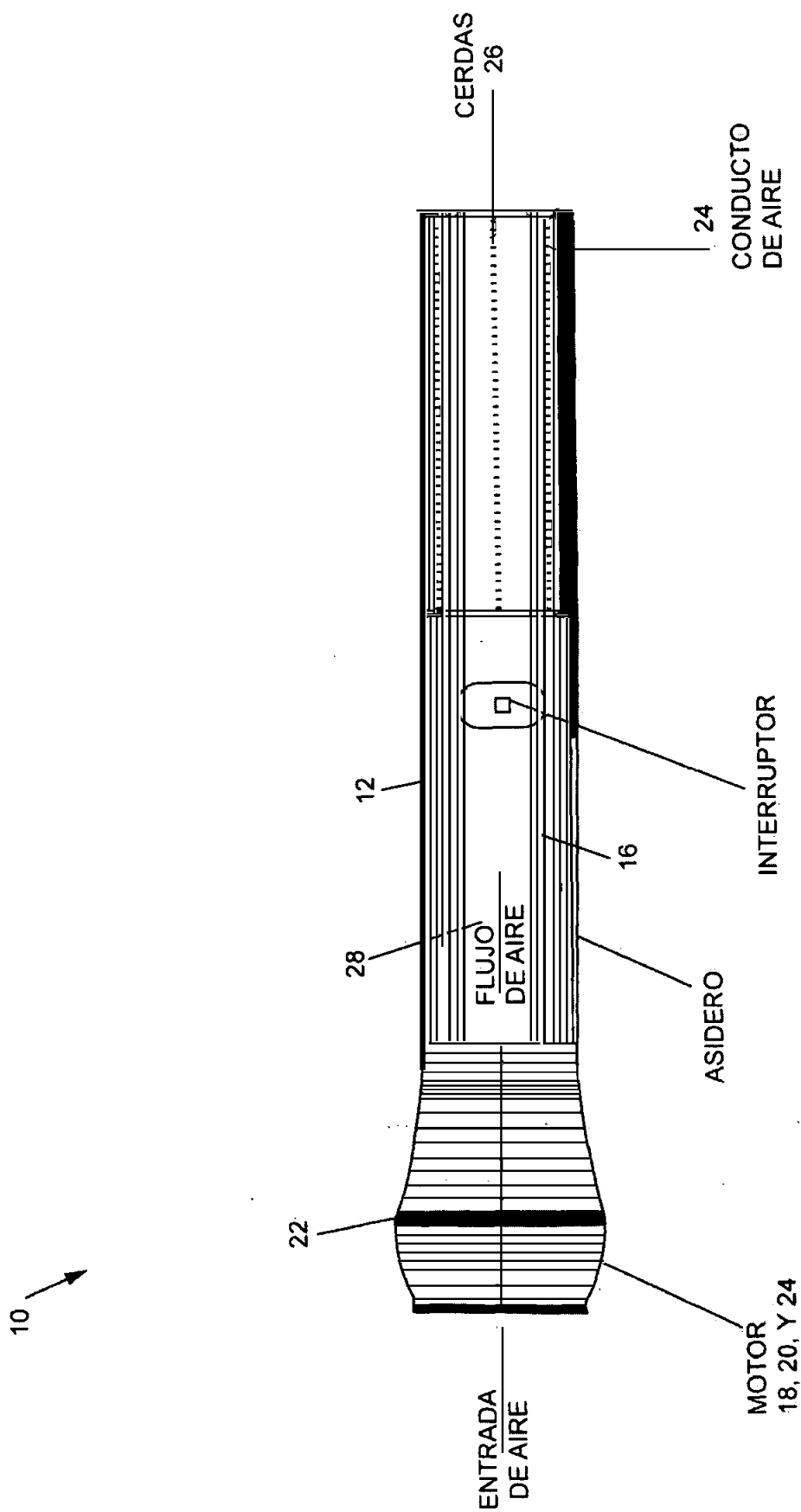
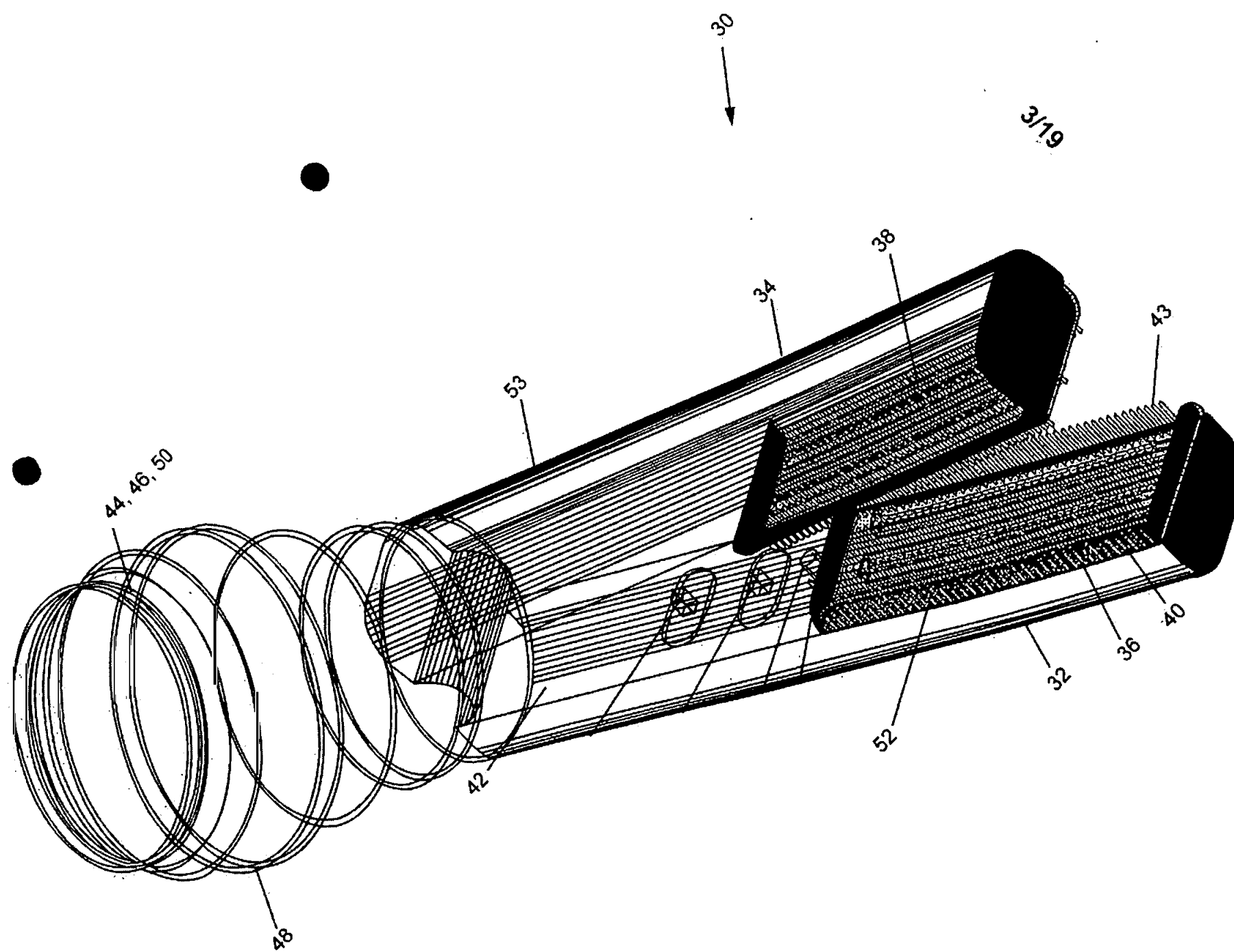


FIG. 2



no. 1

FIG. 3

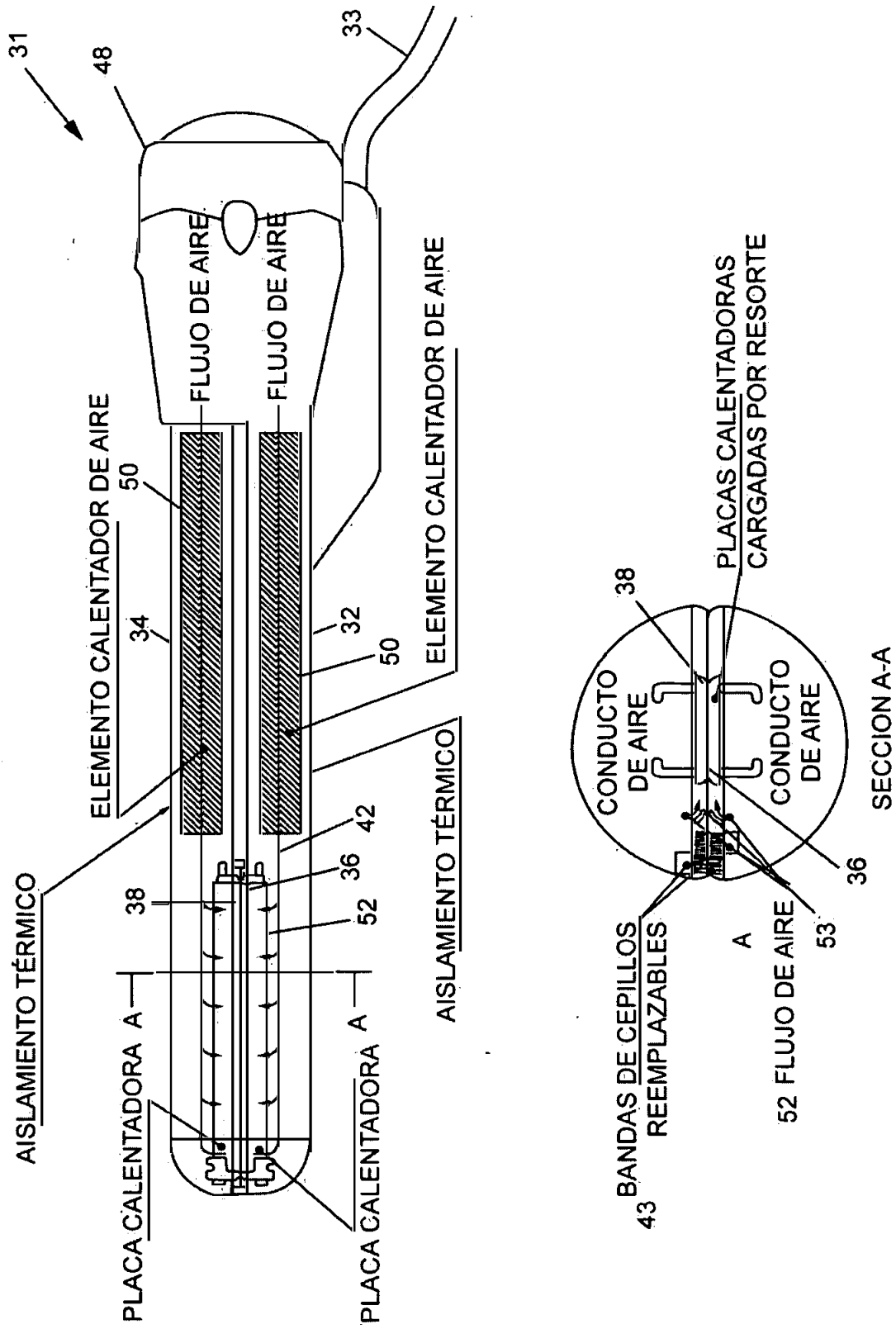
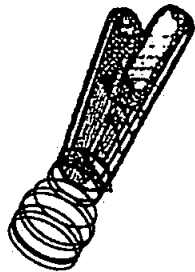
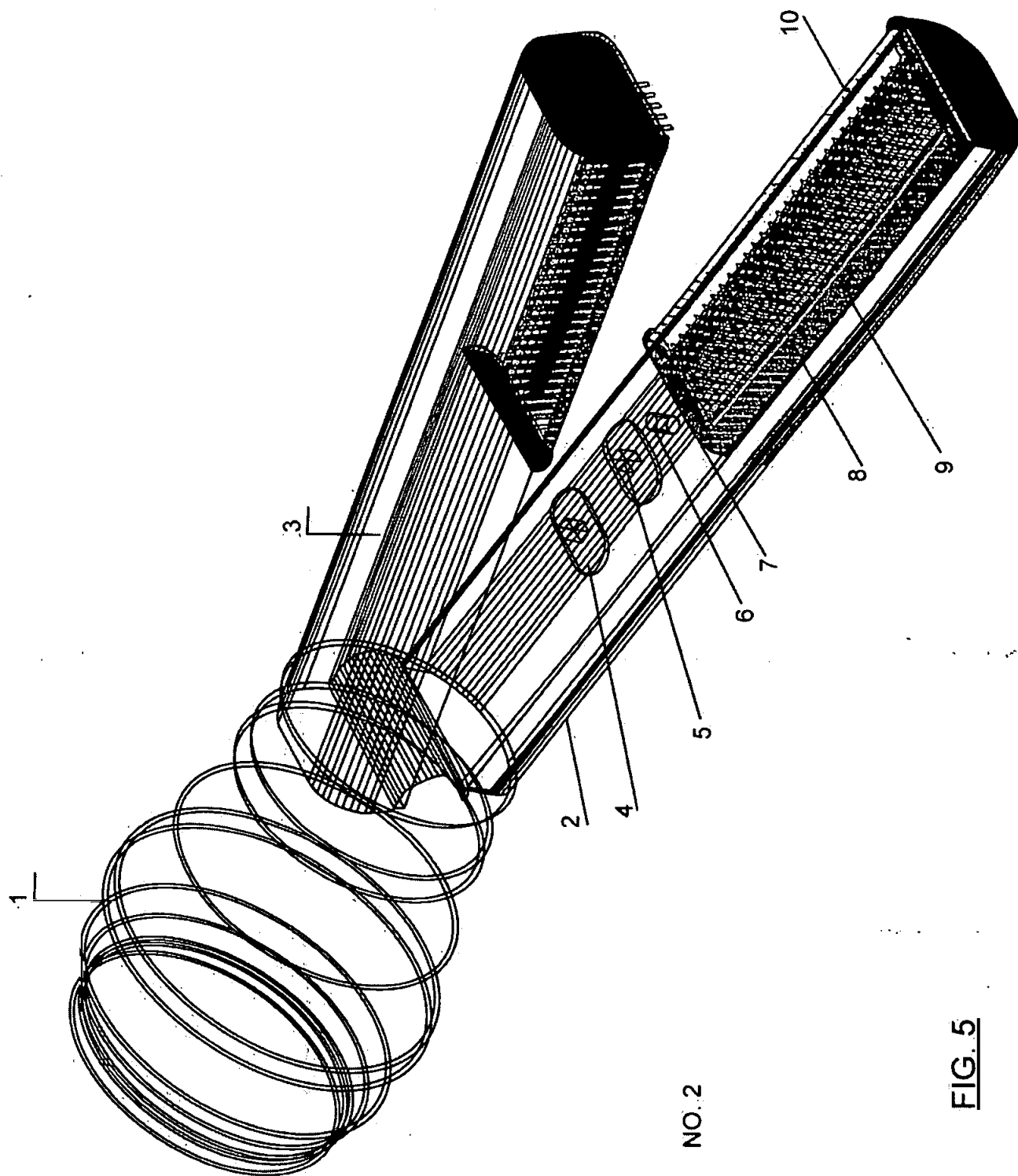


FIG. 3A

CEPILLO+2 PLACAS CALENTADORAS+ AIRE					
ELEMENTO NO.	NOMBRE	FORMA	FUNCIÓN	COLOR	MATERIAL
1	MOTOR		SOPLAR AIRE A PRESIÓN CONTINUA	?	PLÁSTICO U OTRO
2	ALOJAMIENTO INFERIOR		ASIDERO	?	PLÁSTICO U OTRO
3	ALOJAMIENTO SUPERIOR		ASIDERO	?	PLÁSTICO U OTRO
4	INTERRUPTOR DE LA SECADORA POR CHORRO DE AIRE COMPRIMIDO		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO
5	INTERRUPTOR DE LA PLACA CALENTADORA		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO
6	BOTÓN DE INTERRUPTOR		ALOJAMIENTO DEL AJUSTE DE INTERRUPTOR	?	PLÁSTICO U OTRO
7	CONTRA PLACA 1 Y 2		ALINEAMIENTO DEL FLUJO DE AIRE	?	PLÁSTICO U OTRO
8	CERDAS		CEPILLO PARA EL CABELLO	?	PLÁSTICO U OTRO
9	CONDUCTO DE AIRE		TRANSMISIÓN DE AIRE CALIENTE DIRECTAMENTE SOBRE EL CABELLO	?	PLÁSTICO U OTRO
10	PLACA CALENTADORA 1 Y 2		CALENTAR PARA ALISAR EL CABELLO	?	METAL U OTRO
TODAS LAS DIMENSIONES, FORMAS Y MATERIALES SE SOMETEN A VARIACIONES ILIMITADAS					

FIG. 4



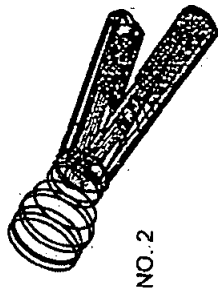


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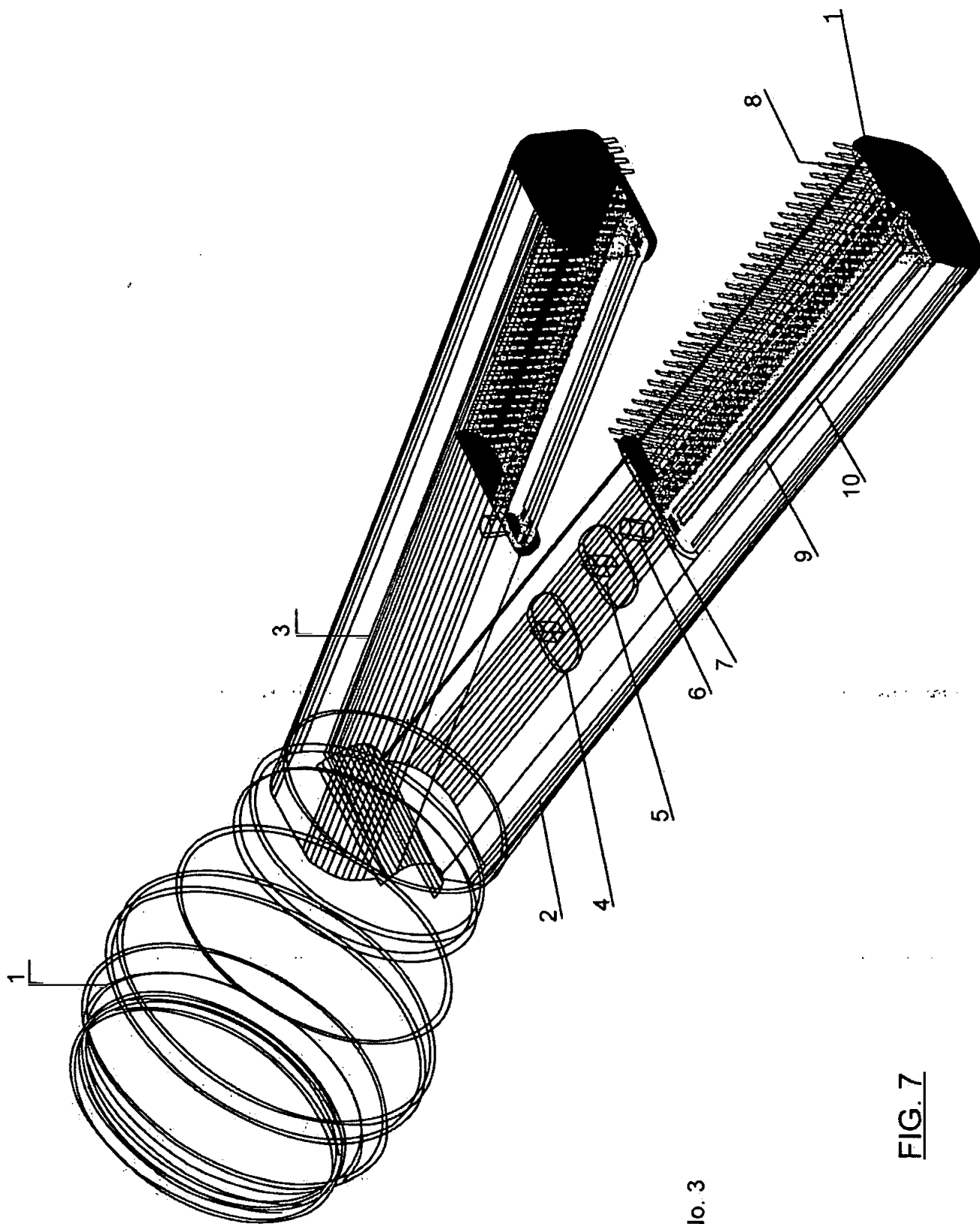
FIG. 5

CEPILLO+PLACA CALENTADORA+ AIRE					
ELEMENTO NO.	NOMBRE.	FORMA	FUNCION	COLOR	MATERIAL
1	MOTOR		SOPLAR AIRE A PRESIÓN CONTINUA	?	PLÁSTICO U OTRO
2	ALOJAMIENTO INFERIOR		ASIDERO	?	PLÁSTICO U OTRO
3	ALOJAMIENTO SUPERIOR		ASIDERO	?	PLÁSTICO U OTRO
4	INTERRUPTOR DE LA SECADORA POR CHORRO DE AIRE COMPRIMIDO		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO
5	INTERRUPTOR DE LA PLACA CALENTADORA		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO
6	BOTÓN DE INTERRUPTOR		ALOJAMIENTO DEL AJUSTE DE INTERRUPTOR	?	PLÁSTICO U OTRO
7	CONTRA PLACA 1 Y 2		ALINEAMIENTO DEL FLUJO DE AIRE	?	PLÁSTICO U OTRO
8	CERDAS		CEPILLO PARA EL CABELLO	?	PLÁSTICO U OTRO
9	CONDUCTO DE AIRE		TRANSFERENCIA DE AIRE CALIENTE DIRECTAMENTE SOBRE EL CABELLO	?	PLÁSTICO U OTRO
10	PLACA CALENTADORA 1 Y 2		CALENTAR PARA ALISAR EL CABELLO	?	METAL U OTRO
TODAS LAS DIMENSIONES, FORMAS Y MATERIALES SE SOMETEN A VARIACIONES ILIMITADAS					

FIG 6



8/19



No. 3

FIG. 7

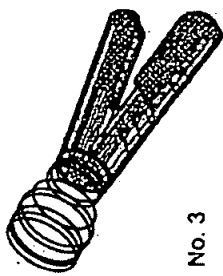
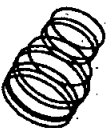
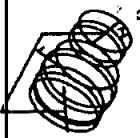
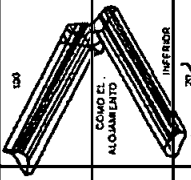
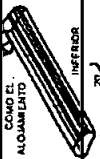
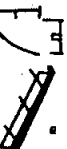
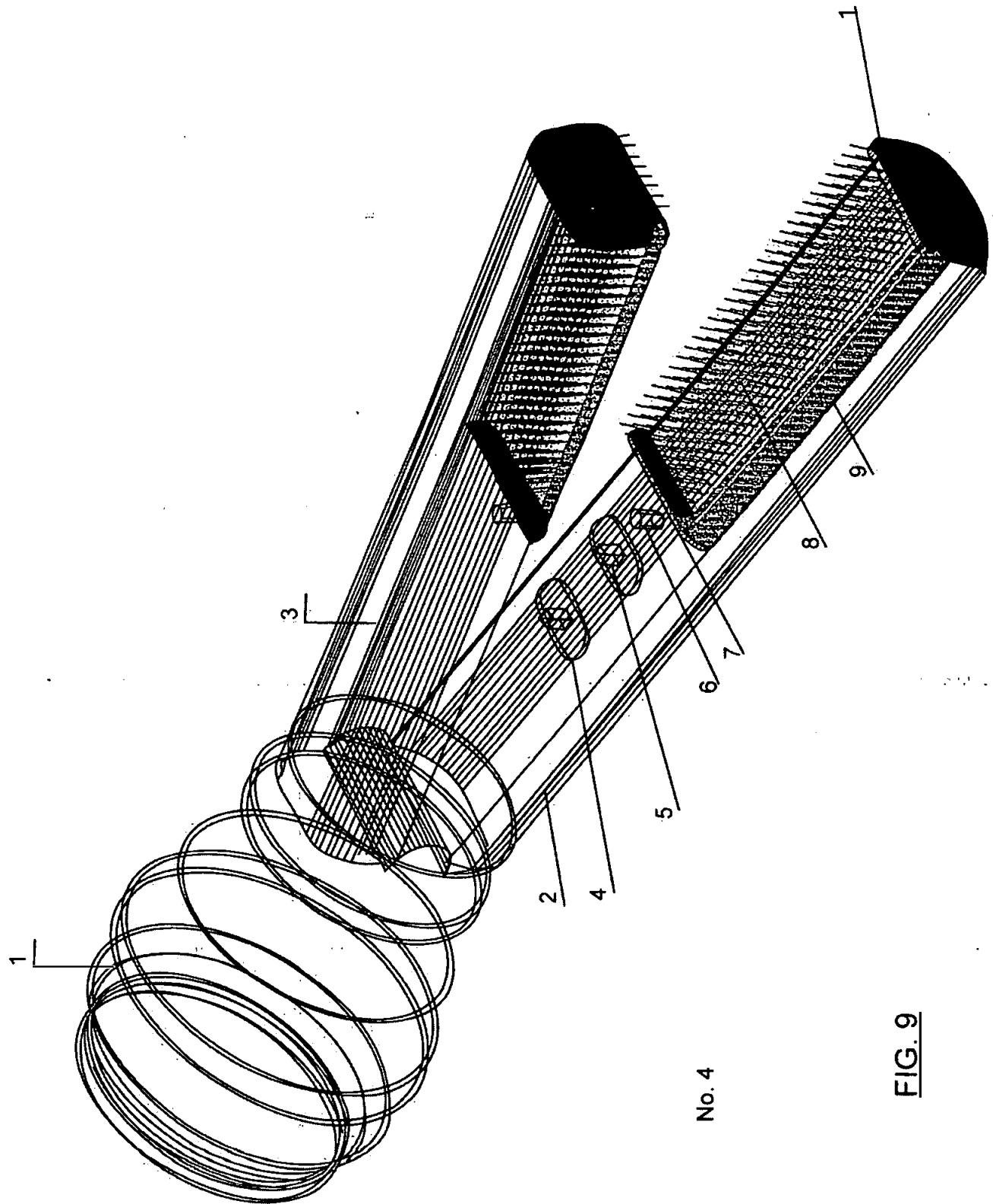
CEPILLO+PLACA CALENTADOR+ AIRE						 No. 3
ELEMENTO NO.	NOMBRE	FORMA	FUNCIÓN	COLOR	MATERIAL	
1	MOTOR		SOPLAR AIRE A PRESIÓN CONTINUA	?	PLÁSTICO U OTRO	
2	ALOJAMIENTO INFERIOR		ASIDERO	?	PLÁSTICO U OTRO	
3	ALOJAMIENTO SUPERIOR		ASIDERO	?	PLÁSTICO U OTRO	
4	INTERRUPTOR DE LA SECADORA POR CHORRO DE AIRE COMPRIMIDO		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO	
5	INTERRUPTOR DE LA PLACA CALENTADORA		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO	
6	BOTÓN DE INTERRUPTIÓN		ALOJAMIENTO DEL AJUSTE DE INTERRUPTIÓN	?	PLÁSTICO U OTRO	
7	CONTRA PLACA 1 Y 2		ALINEAMIENTO DEL FLUJO DE AIRE	?	PLÁSTICO U OTRO	
8	CERDAS		CEPILLO PARA EL CABELLO	?	PLÁSTICO U OTRO	
9	CONDUCTO DE AIRE		TRANSFERENCIA DE AIRE CALIENTE DIRECTAMENTE SOBRE EL CABELLO	?	PLÁSTICO U OTRO	
10	PLACA CALENTADORA		CALENTAR PARA ALISAR EL CABELLO	?	METAL U OTRO	
TODAS LAS DIMENSIONES, FORMAS Y MATERIALES SE SOMETEN A VARIACIONES ILIMITADAS						

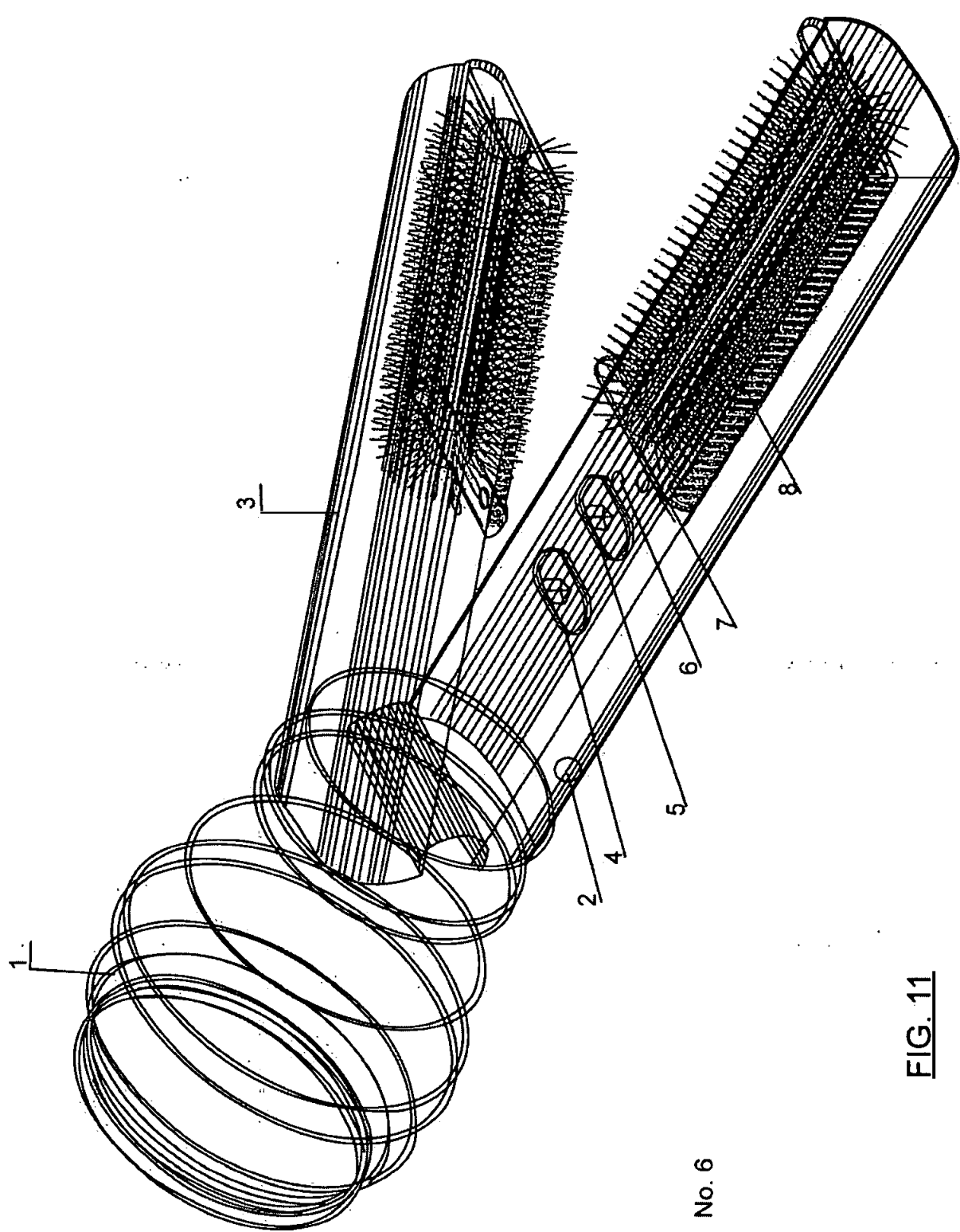
FIG. 8

10/19



No. 4

FIG. 9

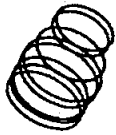
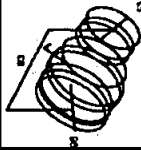
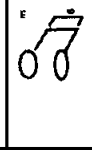
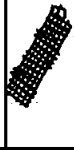


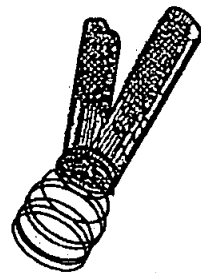
No. 6

FIG. 11

COMBINACIÓN DE SECADORA DE PELO

CEPILLO REDONDO+AIRE

ELEMENTO NO.	NOMBRE	FORMA	FUNCIÓN	COLOR	MATERIAL	DIMENSIONES EN MILÍMETROS
1	MOTOR		SOPLAR AIRE A PRESIÓN CONTINUA	?	PLÁSTICO U OTRO	
2	ALOJAMIENTO INFERIOR		ASIDERO	?	PLÁSTICO U OTRO	
3	ALOJAMIENTO SUPERIOR		ASIDERO	?	PLÁSTICO U OTRO	
4	INTERRUPTOR DE LA SECADORA POR CHORRO DE AIRE COMPRIMIDO		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO	
5	INTERRUPTOR DE LA PLACA CALENTADORA		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO	
6	BOTÓN DE INTERRUPTOR		ALOJAMIENTO DEL AJUSTE DE INTERRUPTOR	?	PLÁSTICO U OTRO	
7	CONTRA PLACA 1 Y 2		ALINEAMIENTO DEL FLUJO DE AIRE	?	PLÁSTICO U OTRO	
8	CERDAS		CEPILLO PARA EL CABELLO	?	PLÁSTICO U OTRO	
9	CONDUCTO DE AIRE		TRANSFERENCIA DE AIRE CALIENTE DIRECTAMENTE SOBRE EL CABELLO	?	PLÁSTICO U OTRO	
TODAS LAS DIMENSIONES, SE SOMETEN A VARIACIONES ILIMITADAS						



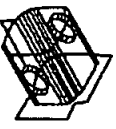
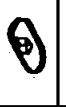
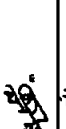
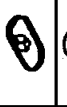
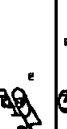
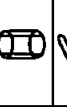
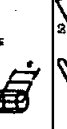
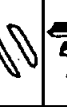
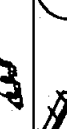
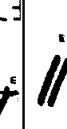
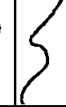
No. 6

CEPILLO REDONDO+AIRE

FIG. 12

COMBINACIÓN DE
SECADORA DE PELO

CERDAS+2 PLACAS CALENTADORAS+AIRE

ELEMENTO NO.	NOMBRE	FORMA	FUNCIÓN	COLOR	MATERIAL	DIMENSIONES EN MILÍMETROS
1	MOTOR		SOPLAR AIRE A PRESIÓN CONTINUA	?	PLÁSTICO U OTRO	
2	TUBO DE AIRE		TRANSFERIR AIRE ENTRE EL MOTOR Y ALOJAMIENTO DEL CEPILLO	?	HALE/RESORTE FLEXIBLE U OTRO	Ø 25mm 2000mm DE LARGO
3	ALOJAMIENTO INFERIOR		ASIDERO	?	PLÁSTICO U OTRO	
4	ALOJAMIENTO SUPERIOR		ASIDERO	?	PLÁSTICO U OTRO	COMO EL ALOJAMIENTO
5	INTERRUPTOR DE LA SECADORA POR CHOQUE DE AIRE COMPRIMIDO		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO	
6	INTERRUPTOR DE LA SECADORA CALENTADORA		ENCENDIDO / APAGADO	?	PLÁSTICO U OTRO	
7	BOTÓN DE INTERRUPTOR		ALOJAMIENTO DEL AJUSTE DE INTERRUPTOR	?	PLÁSTICO U OTRO	
8	CONTRA PLACA 1 Y 2		ALINEAMIENTO DEL FLUJO DE AIRE	?	PLÁSTICO U OTRO	
9	CERDAS		CEPILLO PARA EL CABELLO	?	MATERIAL SELECCIONADO U OTRO	
10	CONDUCTO DE AIRE		TRANSFERENCIA DE AIRE DIRECTAMENTE SOBRE EL CABELLO	?	PLÁSTICO U OTRO	
11	PLACA CALENTADORA 1 Y 2		CALENTAR PARA AISLAR EL CABELLO	?	METAL/CERÁMICA U OTROS	-
12	CORDÓN ELÉCTRICO		SUMINISTRO DE ENERGÍA	?	PVC U OTROS	Ø 14mm 2000mm LARGO
13	PLACA CALENTADORA 1 Y 2		CALENTAR PARA AISLAR EL CABELLO	?	METAL/CERÁMICA U OTROS	-

TODAS LAS DIMENSIONES, FORMAS Y MATERIALES SE SOMETEN A VARIACIONES ILIMITADAS

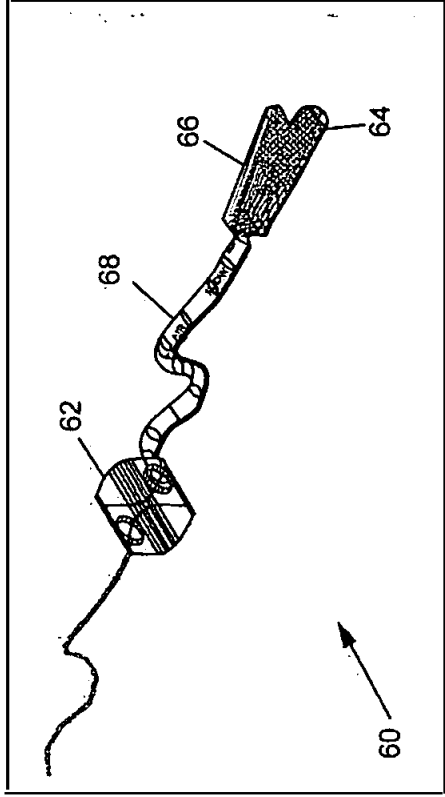


FIG. 13

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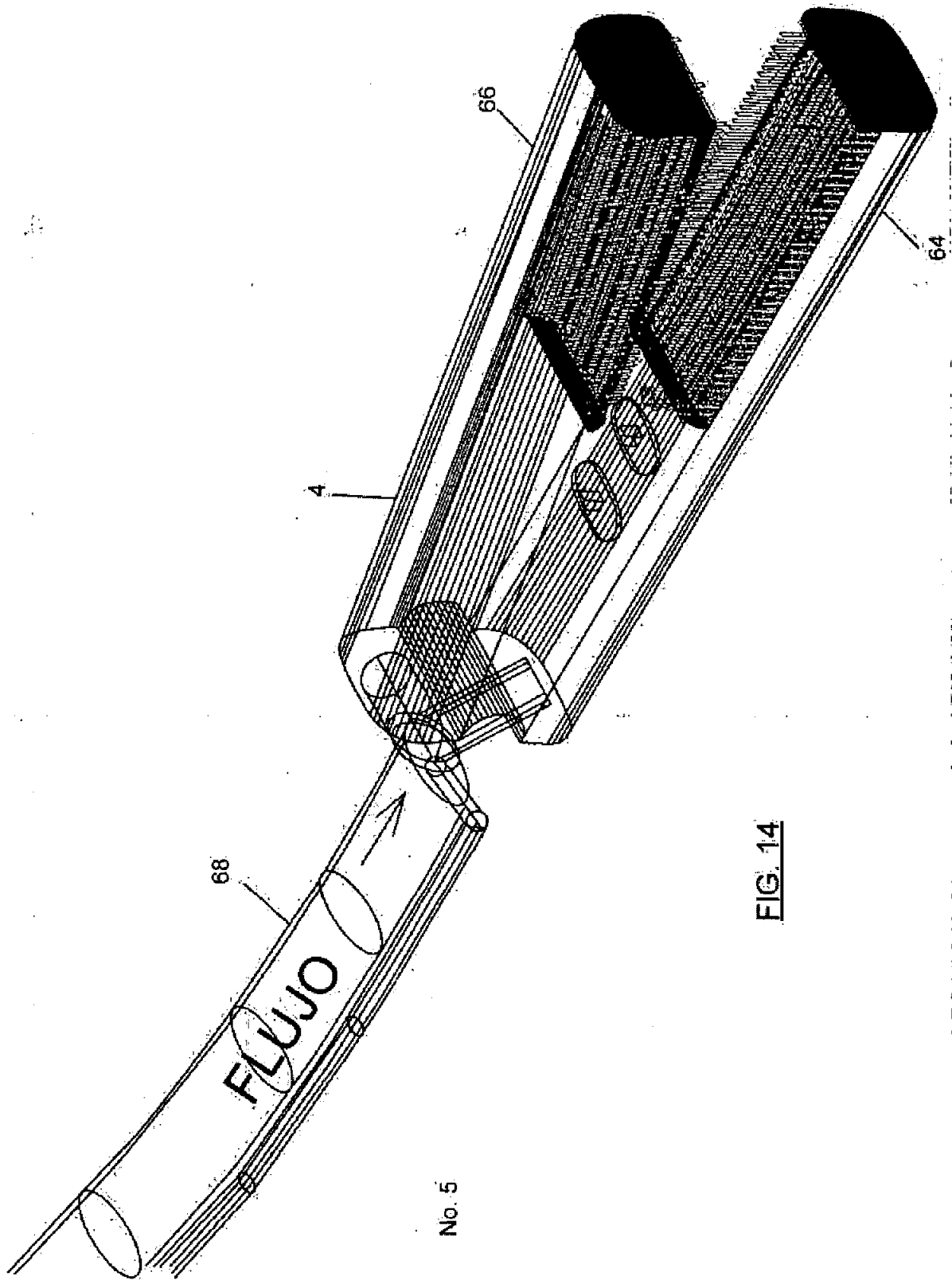


FIG. 14

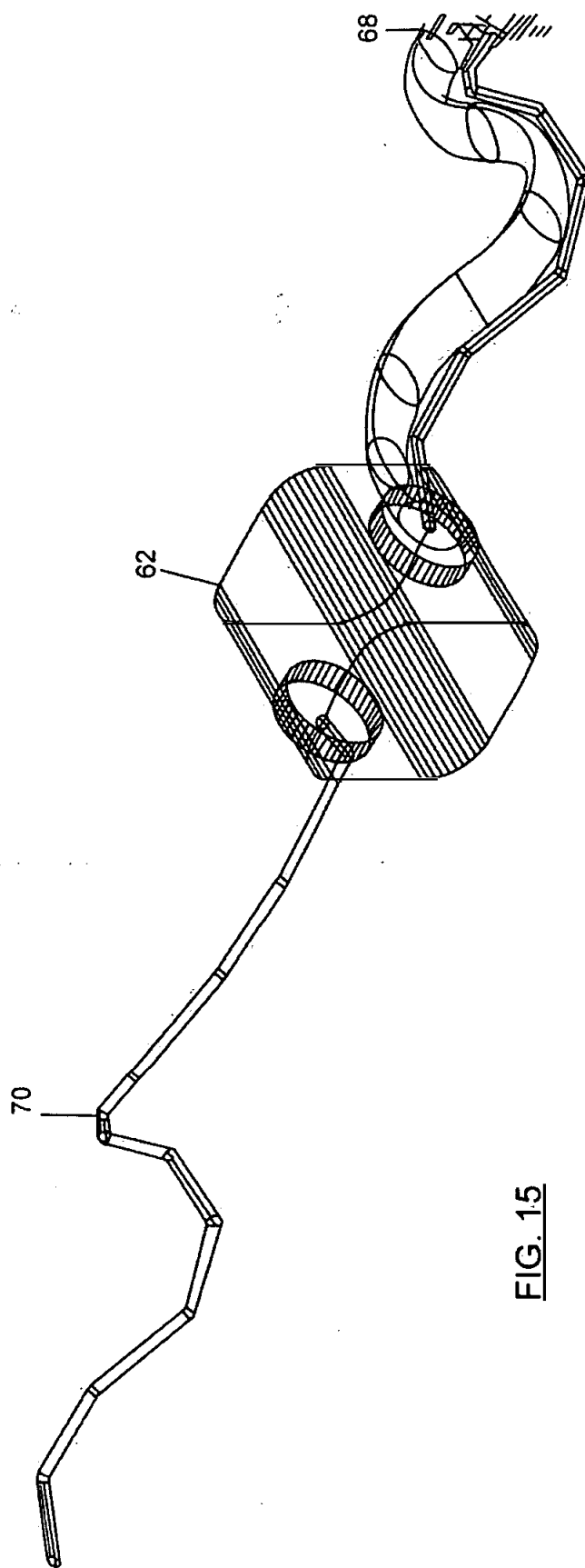


FIG. 15

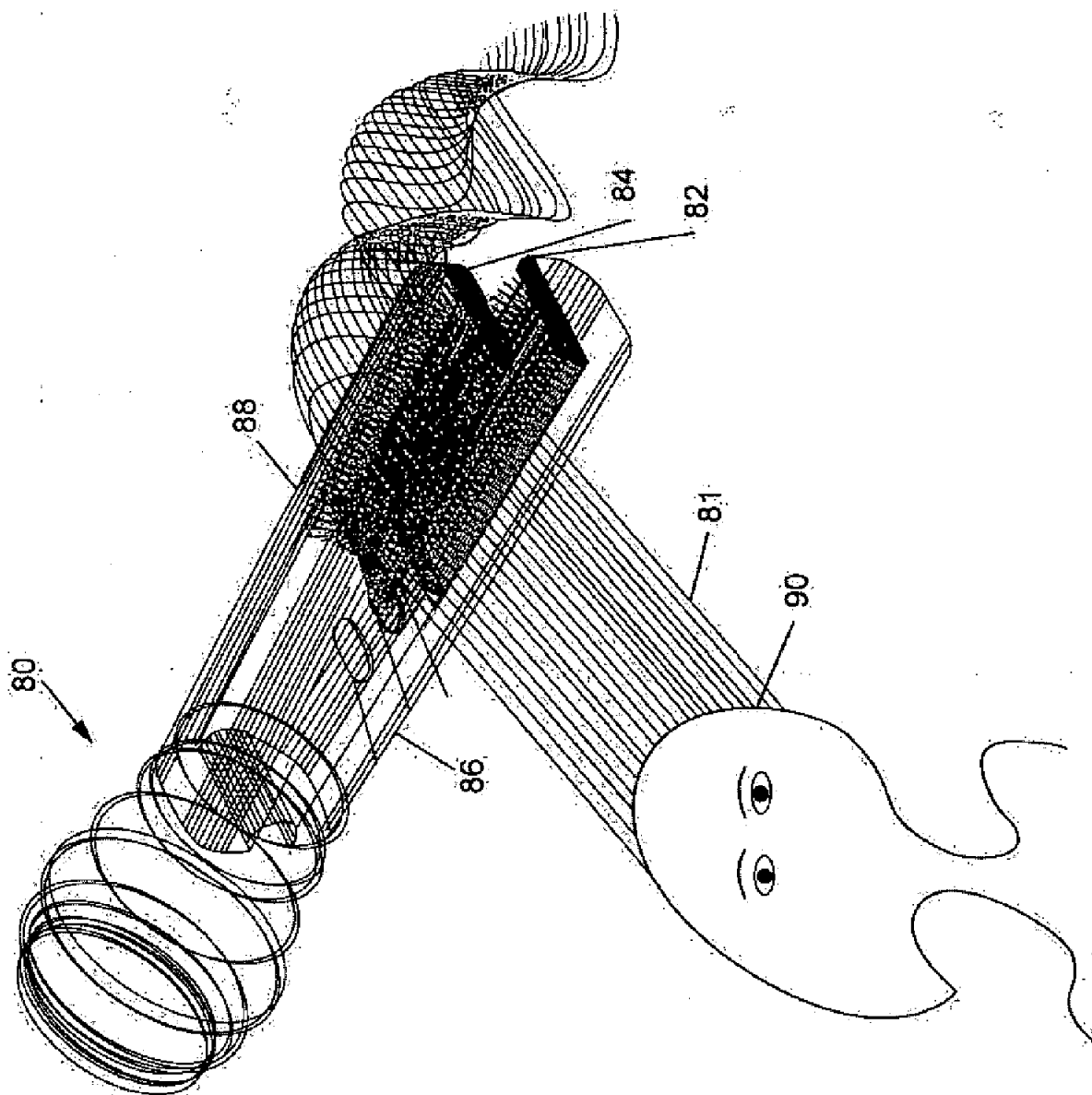


FIG. 16

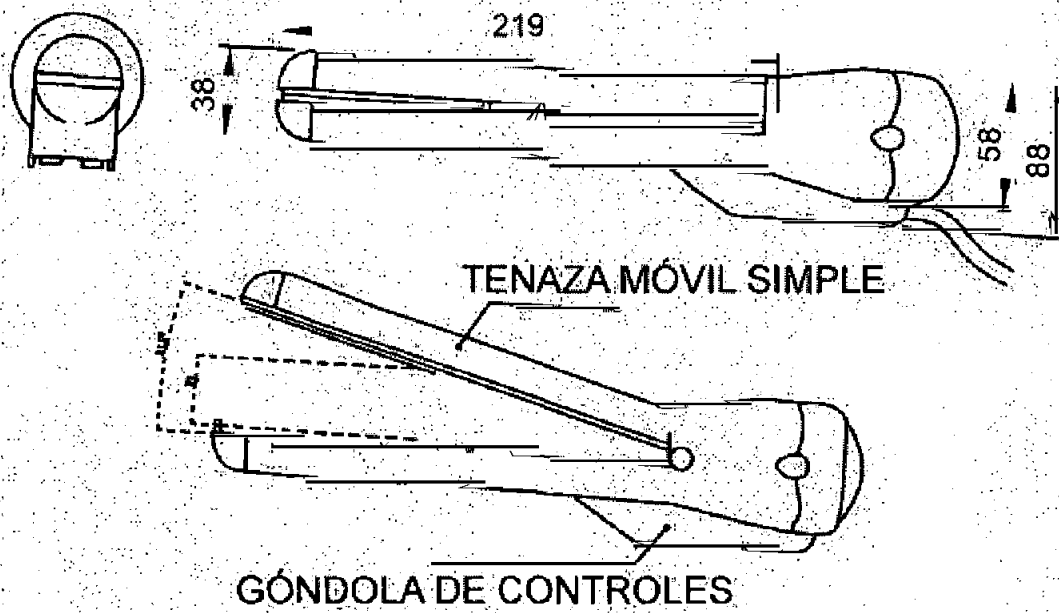


FIG. 17

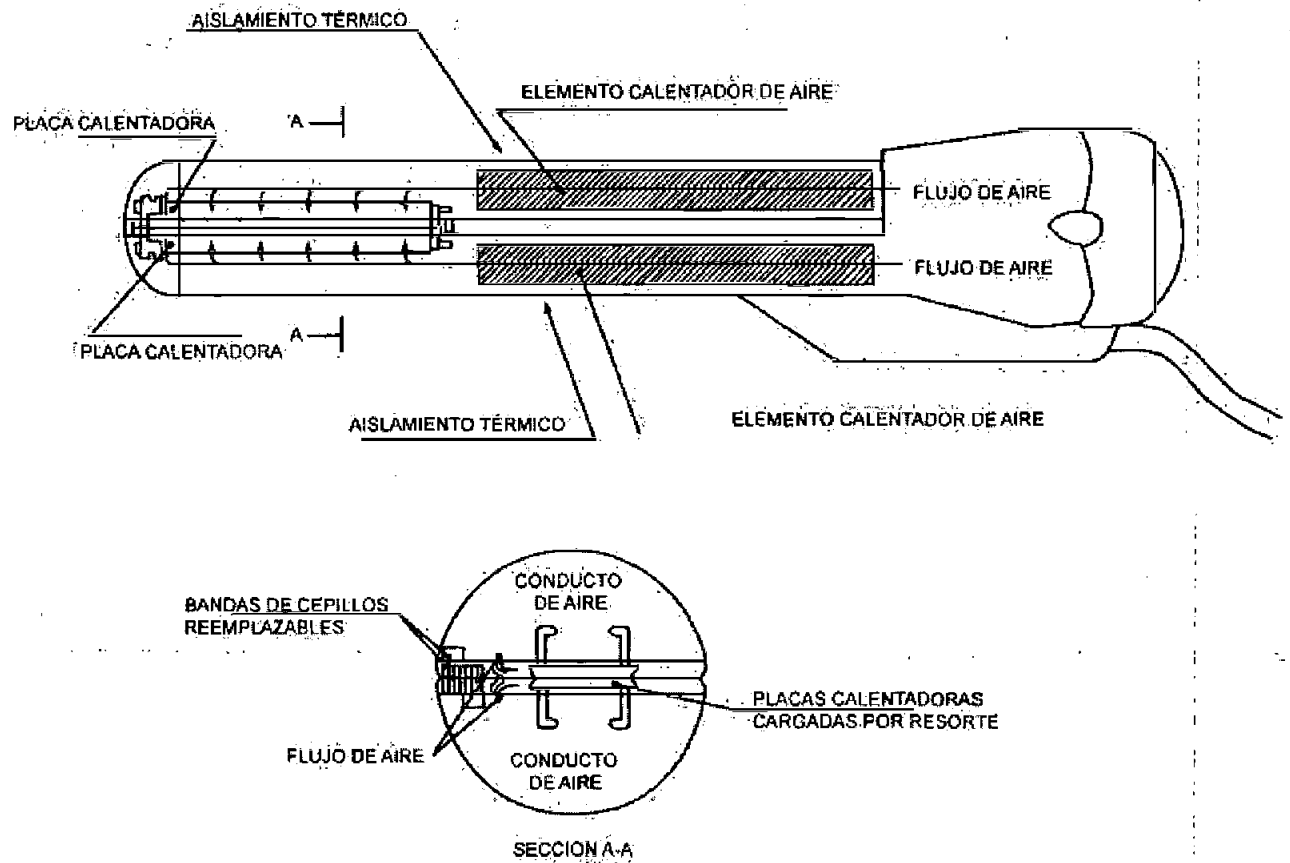


FIG. 18

(19) World Intellectual Property Organization
International Bureau



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(71) Applicant and

(72) Inventor: MOURAD, Joseph [AU/AU]; 2/63 Pile St, Marrickville, Sydney, NSW 2204 (AU).

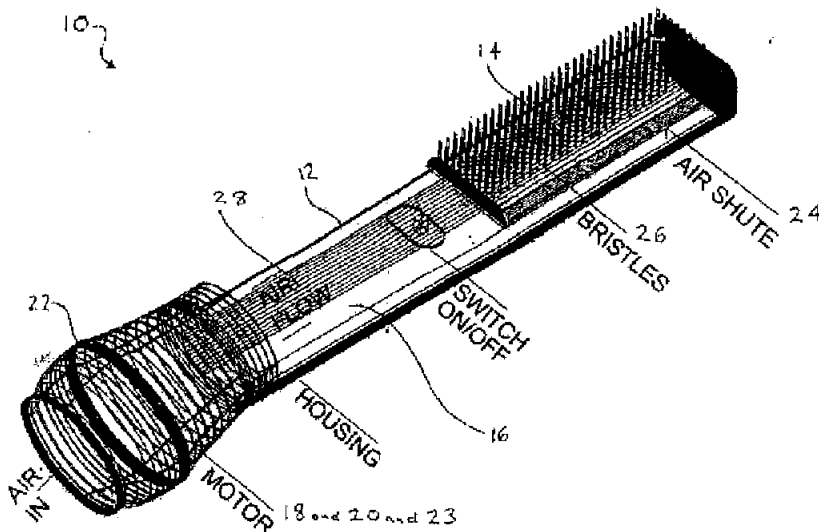
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HAIRSTYLING DEVICE



(57) Abstract: The present invention provides a hairstyling device (10) comprising an elongate arm (12) having a hair receiving surface (14). Within the arm (12) there is an air passageway (16) that carries air injected into it by a fan (18). The air passageway (16) has an elongate air outlet (24) which is parallel to the arm (12). The air outlet (24) is configured to blow air along the length of the hair. Attached to the hair receiving surface (14) are bristles (26) to form a brush.

HAIRSTYLING DEVICE

FIELD OF THE INVENTION

The present invention relates broadly to a hairstyling device.

BACKGROUND OF THE INVENTION

5 Hairstyling often requires drying wet or moist hair. This is traditionally done by directing hot air from a blow dryer onto the hair. This process however, gives the hair a frizzy texture that is not compatible with many desirable hairstyles.

Frizzy hair can be prevented somewhat by the application of a brush to the hair while blow drying hair. Furthermore, the brush and blow dryer combination can achieve a remarkable
10 variety of desirable hairstyles. However, achieving high quality styling with the simultaneous use of a hair brush and blow dryer requires a skilled operator. It can take many years of training before the operator can achieve a satisfactory skill level.

One hairstyle that is particularly difficult to achieve using the brush and blower combination is straight and flat hair. To achieve this style some professional hairstylists use chemical hair
15 straightening techniques, such as "Japanese hair straightening". It will be understood however, that this is an expensive, permanent process that takes many hours and can result in damage to the hair.

Other stylists use hair irons, also known as straightening irons or hair tongs, which can be used to temporarily straighten hair. Hair irons change the structure of the hair by pressing the
20 hair between two hot iron surfaces. Some hair irons are applied to the hair after blow drying. Others are applied to wet hair.

SUMMARY OF THE INVENTION

According to one aspect of the invention there is provided a hair styling device comprising:
an elongate arm having a hair receiving surface extending along at least part of the
25 arm;
an air passageway coupled to the arm and being in fluid communication with an

elongate air outlet associated with the hair receiving surface, the elongate air outlet being disposed substantially parallel to the arm and configured to blow air substantially along the length of the hair; and

brush-means attached to the arm at or adjacent the hair receiving surface.

- 5 According to another aspect of the invention there is provided a hair styling device comprising:

a pair of tongs including two elongate arms being closable with respect to one another, each of the arms having a hair receiving surface;

a heating element connected to one of the hair receiving surfaces;

- 10 an air passageway coupled to at least one of the arms and being in fluid communication with an air outlet associated with the hair receiving surface of that arm;
air heating means operatively coupled to the air passageway for heating air blown through the passageway and exiting the elongate air outlet; and

- brush means attached to at least one of the arms at or adjacent the hair receiving
15 surface.

Preferably the hairstyling device includes a fan operatively coupled to the air passageway for blowing air through the air passageway and the air outlet. More preferably the fan is mounted in a fan casing rigidly attached to the one or more arms. Alternatively the fan is mounted in a fan casing connected to a flexible pipe which is a continuation of the air passageway.

- 20 Preferably the device includes an air heater operatively coupled to the air passageway. More preferably the air heater is mounted in the fan casing.

Preferably the brush means include one or more rows of flat bristles. Alternatively or additionally the brush means include a rotationally mounted brush, the brush being coupled to motor means for driving the brush in a circular motion.

- 25 Preferably the one or more hair receiving surfaces are spring loaded relative to their respective arms.

Preferably the elongate arms are biased or urged away from one another into an open position.

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Preferably the hairstyling device is of a modular design including a handle to which the elongate arm or pair of tongs are detachably connected.

Preferably the hair-styling device includes batteries for powering it. Alternately the hairstyling device is adopted to be powered by mains power.

5 BRIEF DESCRIPTION OF THE FIGURES

In order to achieve a better understanding of the nature of the present invention, several preferred embodiments of a hairstyling device will now be described, by way of example only, with reference to the accompanying figures in which

Figure 1 shows a perspective view of one embodiment of a hairstyling device;

10 **Figure 2** shows a plan view of the hairstyling device of figure 1;

Figure 3 shows a perspective view of another embodiment of a hairstyling device;

Figure 3a shows an elevational and cross-sectional view of another embodiment of a hairstyling device, similar to the embodiment of figure 3.

Figure 4 shows some of the component parts of the hairstyling device of figure 3;

15 **Figures 5 through to 12** show several other embodiments of a hairstyling device, the embodiments being similar to the embodiment of figure 3;

Figure 13 shows another embodiment of a hairstyling device where the fan casing is connected to the arms by a flexible pipe;

Figure 14 is a close up perspective view of the arms of the hairstyling device of figure 13;

20 **Figure 15** is a close up perspective view of the fan casing of the hairstyling device of figure 13;

Figure 16 is a perspective view of one embodiment of a hairstyling device in use;

Figure 17 is a specification sheet of one embodiment of a hairstyling device; and

Figure 18 is a continuation of the specification sheet of figure 17.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

One embodiment of a hairstyling device is shown in figures 1 and 2 and generally indicated as 10. The hairstyling device 10 has an elongate arm 12 having a flat and generally rectangular hair receiving surface 14 that extends along part of the arm 12. The hair receiving surface 14 may be made of ceramic or a metal such as aluminium or plastic. Within the arm 12 there is an air passageway 16 that carries air injected into it by a fan 18 driven by an electric motor 20. In this embodiment the fan 18 and motor 20 are mounted in a fan casing 22 rigidly attached to the arm 12, the fan casing 22 also including heating elements 23 to heat the air.

10 In some other embodiments, however, the fan casing is separate to the arm 12 but connected to the arm 14 by a flexible pipe which is a continuation of the air passageway 16.

The air passageway 16 has an elongate air outlet 24 which is parallel to the arm 12 and extends along the side of the hair receiving surface 14. The air outlet 24 is configured to blow air across the hair receiving surface 14 and thus substantially along the length of the hair placed perpendicular to the arm 12 and on the surface 14. Attached to the hair receiving surface 14 are bristles 26 to form a brush, although in some embodiments the bristles 26 may be placed along an edge of the surface 14. The bristles could be made of nylon, wire, metal, copper, bone, plastic, aluminium, pure bristle or any other type of bristle. In some embodiments not illustrated here, the brush is rotationally mounted on the arm 12 and coupled to an electric motor for driving the brush in a circular motion. The brush is round, but could be another shape such as square. This would help tension the hair.

The hairstyling device 10 is of a modular design and includes a handle or hand grip 28.

This embodiment of a hairstyling device is mains powered, however it may alternatively be powered by batteries.

25 Another embodiment of hairstyling device is shown in figure 3, and is generally indicated as 30. The hairstyling device 30 has a pair of tongs including two elongate arms 32 and 34 that are closable with respect to one another. The arms 32 and 34 are biased or urged away from

one another in an open position. Each arm has a generally rectangular hair receiving surface 36 and 38. The surface may be constructed, for example, of ceramic, aluminium or titanium. One or both of the hair receiving surfaces 36 and 38 are heated by a heating element 40 connected directly under the hair receiving surface 36. Within the arm 32 there is an air passageway 42 that carries air injected into it by a fan 44 driven by an electric motor 46. The fan 44 and motor 46 are mounted in a fan casing 48 attached to the arms 32 and 34, the fan casing 48 also including heating elements 50 to heat the air.

The air passageway 42 has an elongate air outlet 52 which is parallel to the arm 32 and extends along the side of the hair receiving surface 36. The air outlet 52 is configured to blow air across the hair receiving surface 36 and thus substantially along the length of hair placed perpendicular to the arm 32 on the surface 36. Attached to the hair receiving surfaces 36 and 38 are bristles 43 to form a brush, although in some embodiments the bristles may be alternatively placed along an edge of the surfaces 36 and 38. In some embodiments, the brush is rotationally mounted on the arm 12 and coupled to an electric motor for driving the brush in a circular motion. This would help to tension the hair.

The hair receiving surfaces 36 and 38 are spring loaded relative to their respective arms 32 and 34 to apply pressure to hair placed between the surfaces 36 and 38 before they are fully closed. There is approximately 2mm of travel available to each surface.

This embodiment of a hairstyling device is mains powered, however it may alternatively be powered by batteries. The hairstyling device is of a modular design and includes a handle or hand grip 53 to which the arm 12 or tongs are detachably connected. Figure 4 shows some of the components of the hairstyling device of figure 3.

Another embodiment of a hairstyling device, similar to the embodiment of figure 3, is shown in figure 3a and indicated as 31. Features in figure 3a that are common in function to features in figure 3 have been identically numbered. The configuration of the elongate air outlet 52 is shown in section A-A of figure 3a. The air exiting the elongate air outlet 52 is deflected by a shroud 53 across the hair receiving surfaces 36 and 38 as indicated by the airflow lines. A distinguishing feature of the embodiment of figure 3a is that the air heating elements 50 are located within the arms 32 and 34. Another distinguishing feature is that the bristles mounted

on a detachable strip run along one side of the hair receiving surfaces 36 and 38. The hairstyling device has a power cord 33 for connecting it to mains power.

Figures 5 to 12 show other embodiments of a hairstyling device similar to that shown in figures 3 and 4. The reference numerals used correspond to the parts listing of that drawing.

5 Figure 13 shows another embodiment of the hairstyling device generally indicated as 60. In this embodiment the fan casing 62 containing the fan, motor and heating element is separate to the arms 64 and 66 but connected to the arms 64 and 66 by a flexible pipe 68 for transporting the heated air. Figure 14 shows a more detailed drawing of the arms 64 and 66. Figure 15 shows a more detailed drawing of the fan casing 62, which is connected to mains
10 power by a power cable 70.

Figure 16 shows an embodiment of a hairstyling device 80 of the invention in use. Hair 81 is placed between the hair receiving surfaces 82 and 84 and the arms 86 and 88 closed together to grasp the hair. The hairstyling device is then drawn along the tensioned hair 82, in a direction generally away from the scalp 90. The direction of air flow is also generally away
15 from the scalp 90. Importantly, the air flow is directed substantially along the length of the hair away from the scalp 90.

Figures 17 and 18 are specification sheets for one embodiment of a hairstyling device according to the invention.

It will be appreciated by persons skilled in the art that numerous variations and/or
20 modifications may be made to the invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. For example the hair receiving surfaces may not be a straightening plate but a flocked plate, a deep wave plate, or a micro-crimp plate to curl, crimp, bend, flip, spiral, or straighten the hair. Additionally, there may be means to apply thermal protectors such as lotion to protect the hair during treatment
25 or some other hair product. The brush means may be in the form of relatively rigid comb elements rather than the bristles described. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive.

Specification – Hair Styler Appliance

ANNEXURE 1 (Refer Figure 17)

1 General

A mains operated, electrical device intended to combine the function of a hair dryer, hair brush & styling hot plates. The overall look & feel of the unit is to be of high quality with no sharp edges or visible fasteners.

2 Electrical

- 2.1 Able to be manufactured in both US spec, (110V, 60Hz) & Aust/UK spec, (220-240V, 50Hz) versions.
- 2.2 Double insulated.
- 2.3 Total Power Consumption = 1800W Max
- 2.4 Fan motor, encased, permanent magnet typed DC motor recommended.
- 2.5 Thermal overload protection required on each hot plate as well as air heating element.
- 2.6 Heated air controls, 3 settings as listed here:
 - 2.6.1 No airflow, ie: off.
 - 2.6.2 Full speed fan, 50% air heating.
 - 2.6.3 Full speed fan, 100% air heating, (output air temp 100 Deg. C min).
- 2.7 Hot plate heat controls independent of controls above are simply on & off. Hotplate working surface temperature 160 deg C min.
- 2.8 2 x Air heating elements required, one in each "tong".
- 2.9 The air heating elements must not be powered unless the fan is running.

3 Mechanical

- 3.1 Max total weight = 750g
- 3.2 Overall dimensions refer dwg below.
- 3.3 Tongs to be spring loaded to open to angle specified.
- 3.4 Controls must be recessed such that switch setting cannot be changed inadvertently.
- 3.5 All external surfaces smooth.

50

ANNEXURE 2 (Refer Figure 18)**4 Tong Configuration.**

- 4.1** Each of the two tongs is to have 4 active components within it. Note that the position of these components, relative to each other is seen as critical & is shown in accompanying diagram:
 - 4.1.1** Air heating element situated within the duct as shown in the diagram.
 - 4.1.2** A spring loaded hot plate. The spring loading is necessary in order to apply pressure to the hair between the plates before they are fully closed. The hot plates need to be able to move approximately 1-2 mm.
 - 4.1.3** Replaceable brush strips. These strips will wear out with use & must therefore be replaceable.
 - 4.1.4** A long, narrow, curved duct incorporated in the housing so as to direct the heated air toward the adjacent hot plate. Refer diag.

51

CLAIMS

1. A hair styling device comprising:
an elongate arm having a hair receiving surface extending along at least part of the arm;
5 an air passageway coupled to the arm and being in fluid communication with an elongate air outlet associated with the hair receiving surface, the elongate air outlet being disposed substantially parallel to the arm and configured to blow air substantially along the length of the hair; and
brush means attached to the arm at or adjacent the hair receiving surface.
- 10 2. A hair styling device comprising:
a pair of tongs including two elongate arms being closable with respect to one another, each of the arms having a hair receiving surface;
a heating element connected to at least one of the hair receiving surfaces;
an air passageway coupled to at least one of the arms and being in fluid
15 communication with an air outlet associated with the hair receiving surface of that arm;
air heating means operatively coupled to the air passageway for heating air blown through the passageway and exiting the elongate air outlet; and
brush means attached to at least one of the arms at or adjacent the hair receiving surface.
- 20 3. A hairstyling device as claimed in either of claims 1 or 2 also comprising a fan operatively coupled to the air passageway for blowing air through the air passageway and the air outlet.
4. A hair styling device as claimed in claim 3 wherein the fan is mounted in a fan casing rigidly attached to the one or more arms.
- 25 5. A hair styling device as claimed in claim 3 wherein the fan is mounted in a fan casing connected to a flexible pipe which is a continuation of the air passageway.

82

6. A hair styling device as claimed in any one of the preceding claims also comprising an air heater operatively coupled to the air passageway.
7. A hair styling device as claimed in either of claims 5 or 6 wherein the air heater is mounted in either the fan casing or the one or more of the arms.
- 5 8. A hair styling device as claimed in any one of the preceding claims wherein the brush means include one or more rows of flat bristles.
9. A hair styling device as claimed in any one of the preceding claims wherein the brush means include a rotationally mounted brush, the brush being coupled to motor means for driving the brush in a circular motion.
- 10 10. A hair styling device as claimed in any one of the preceding claims wherein the one or more hair receiving surfaces are spring loaded relative to their respective arms.
11. A hair styling device as claimed in claim 2 wherein the elongate arms are biased or urged away from one another into an open position.
12. A hair styling device as claimed in claim 4 being of a modular design where the
15 elongate arm or pair of tongs are detachably connected to the fan casing.
13. A hair styling device as claimed in any one of the preceding claims that is adapted to be battery powered.
14. A hair styling device as claimed in any one of claims 1 to 12 that is adapted to be mains powered.

53

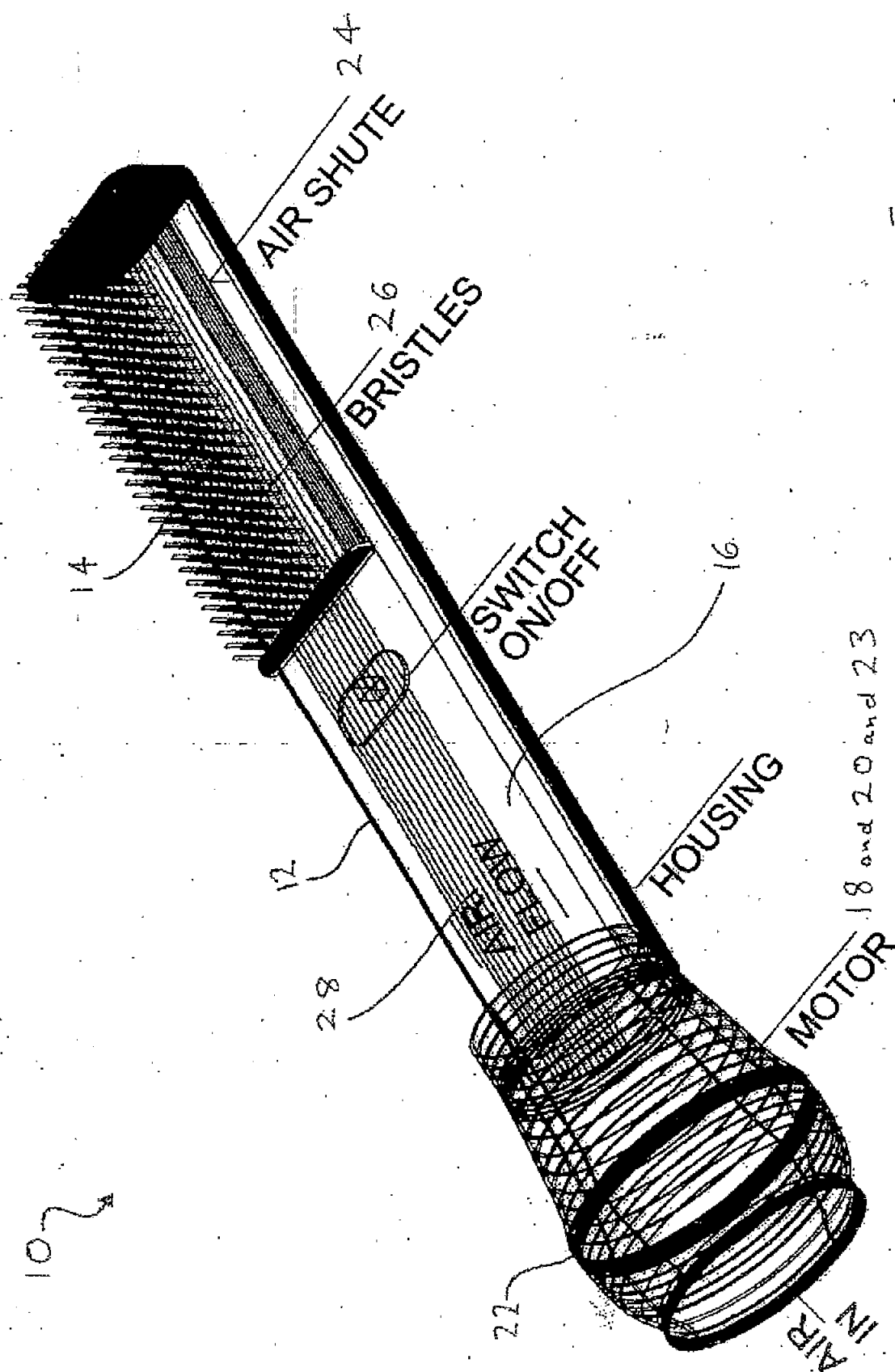


Figure 1

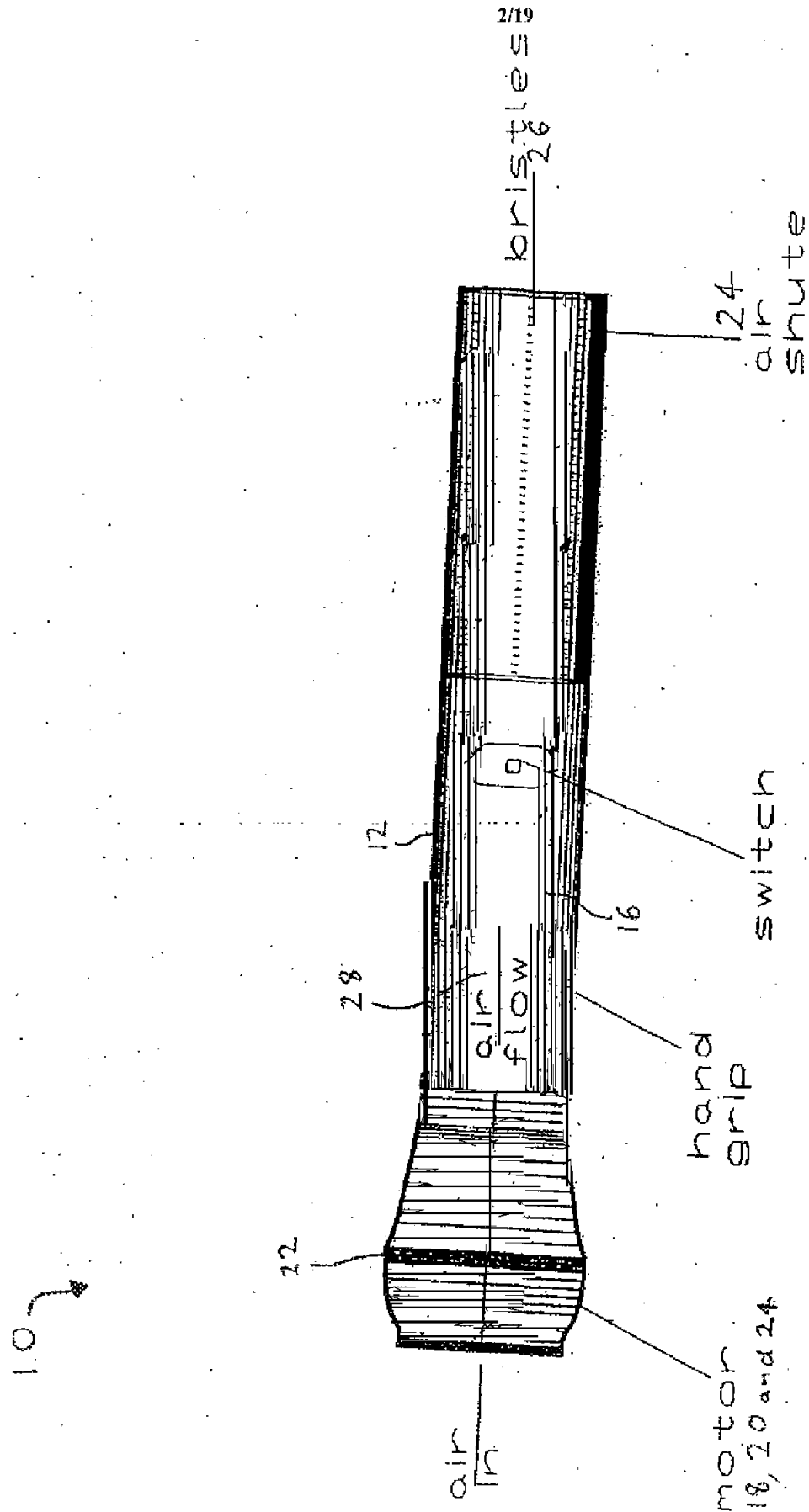
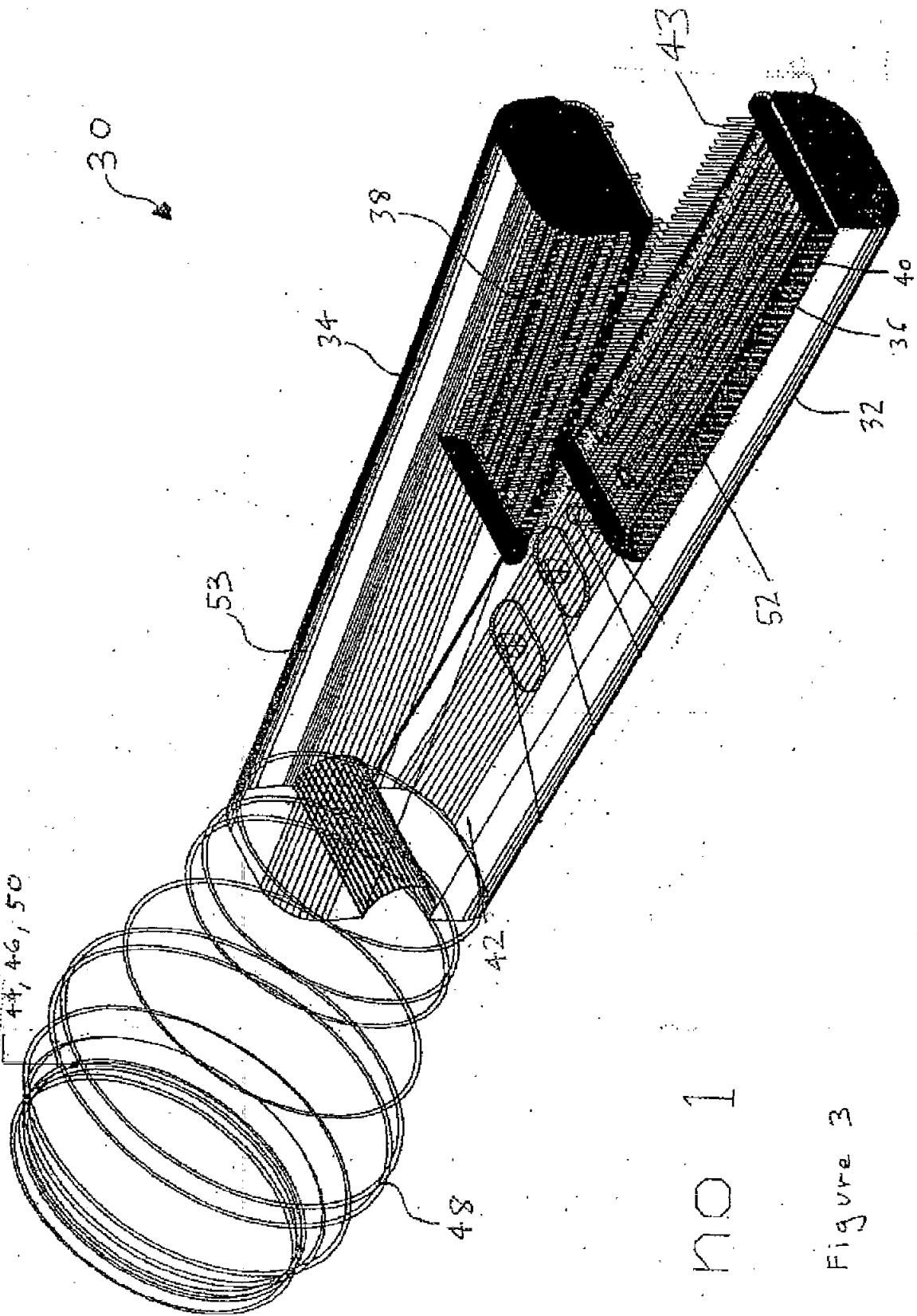
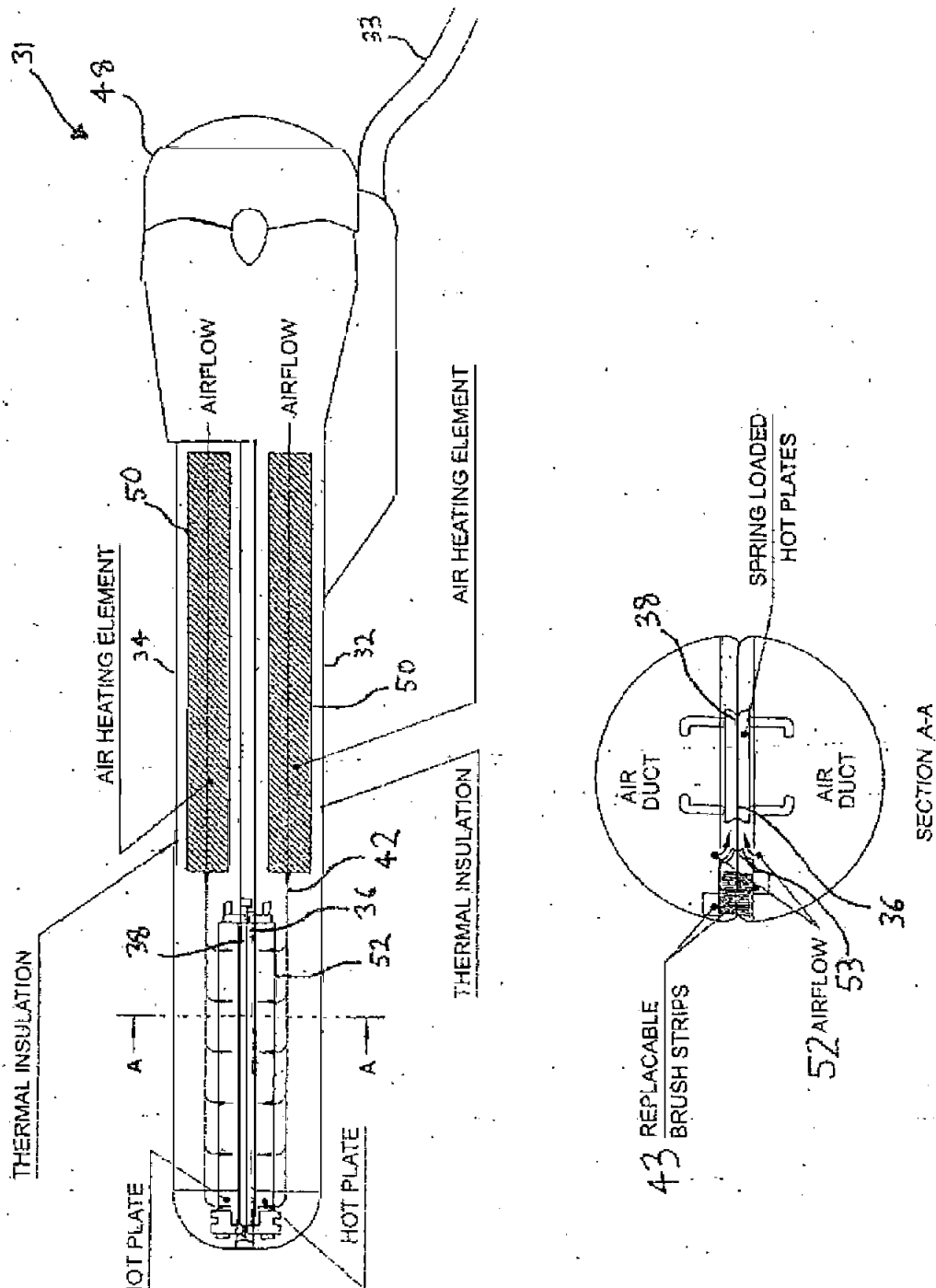


Figure 2



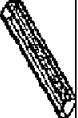
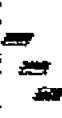
no 1

Figure 3



Substitute Sheet
(Rule 26) RO/AU

Figure 3A

BRUSH+2HOTPLATES+AIR					
ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL
1	MOTOR		TO PUMP FORCE AIR THROUGH	?	PLASTIC OR OTHER
2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER
4	BLOW DRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER
7	BACKING PLATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER
9	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER
10	HOT PLATE-1 AND-2		HEATS UP TO STRAIGHTEN HAIR	?	METAL OR OTHER
ALL DIMENSIONS, SHAPES AND MATERIALS ARE SUBJECTED TO UNRESTRICTED VARIATIONS					

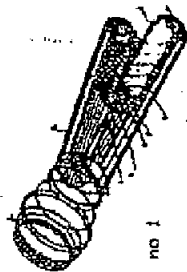
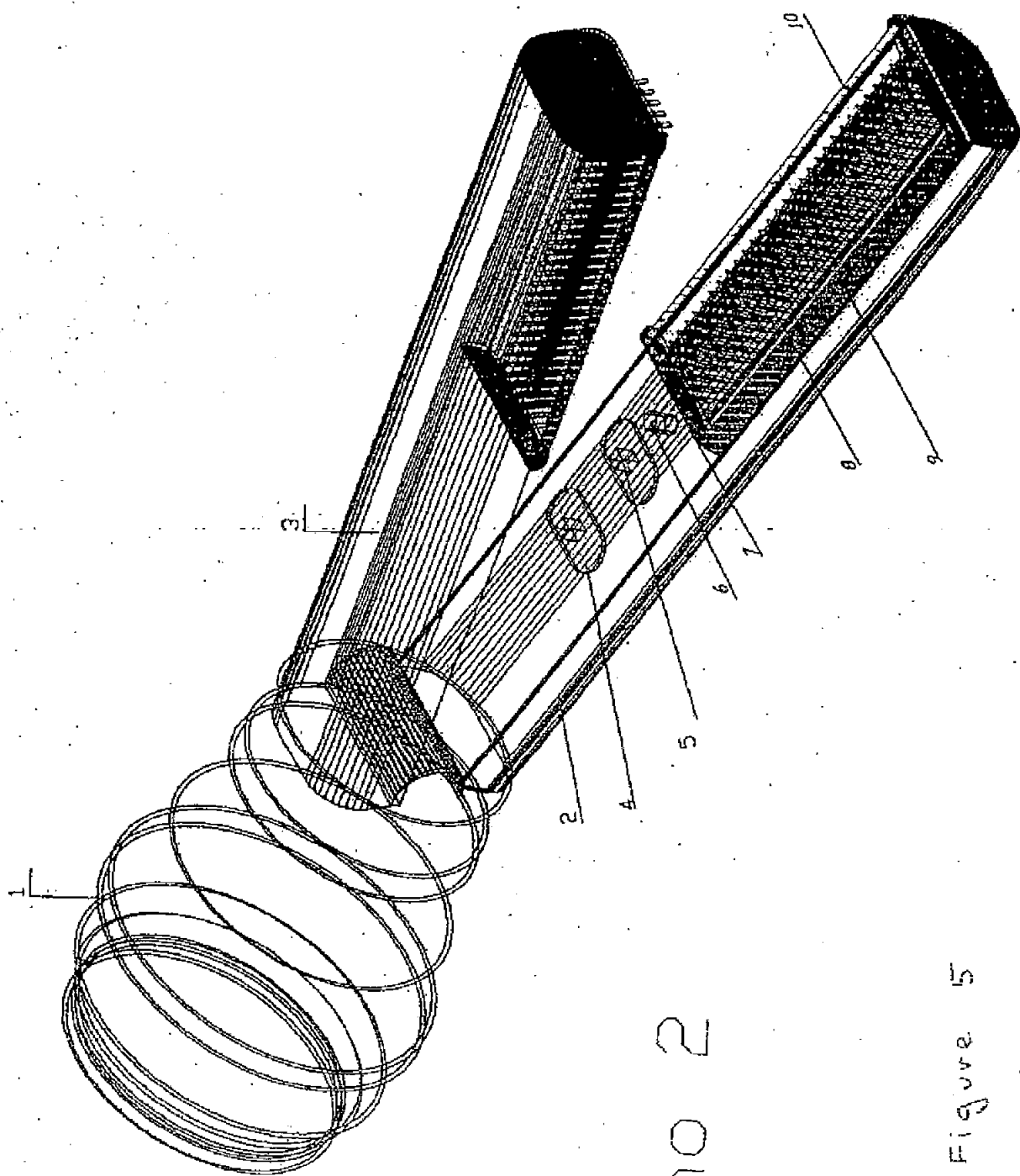


Figure 4

58



no 2

Figure 5

59

BRUSH+HOTPLATE+AIR					
ITEM No	NAME	SHAPE	FUNCTION	COLOR	MATERIAL
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER
2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER
4	BLOW DRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER
7	BACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER
9	AIR CHUTE		RELEASE HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER
10	HOT PLATE		HEATS UP TO STRAIGHTEN HAIR	?	METAL OR OTHER
ALL DIMENSIONS, SHAPES AND MATERIALS ARE SUBJECTED TO UNRESTRICTED VARIATIONS					

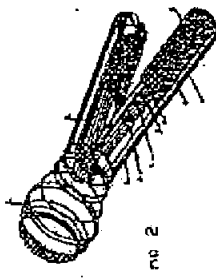
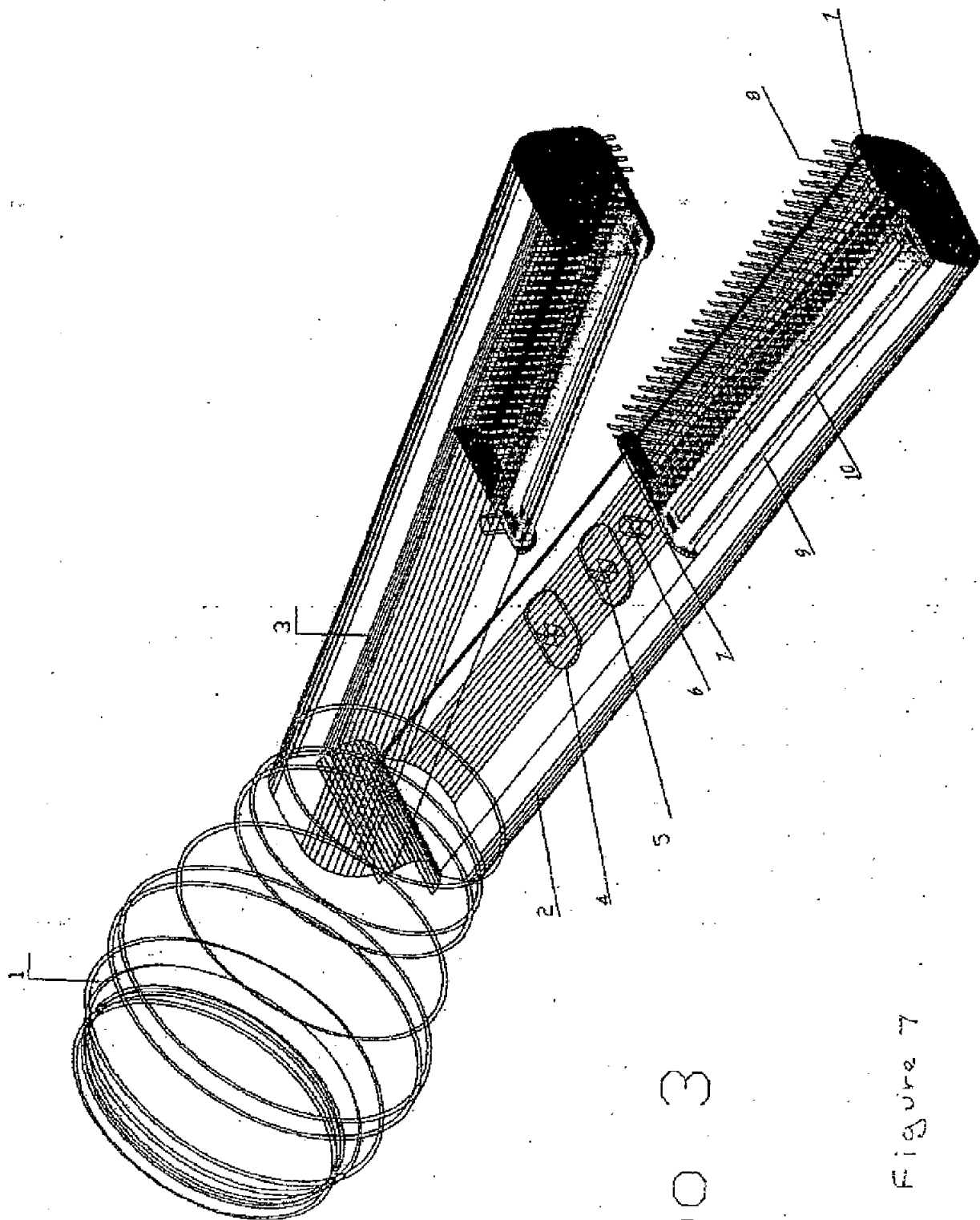


Figure 6



no 3

Figure 7

BRUSH+HOTPLATE+AIR					
ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC
2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER
4	BLOW DRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER
7	BACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER
9	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER
10	HOT PLATE		HEATS UP TO STRAIGHTEN HAIR	?	METAL OR OTHER
ALL DIMENSIONS, SHAPES AND MATERIAL ARE SUBJECTED TO UNRESTRICTED VARIATIONS					

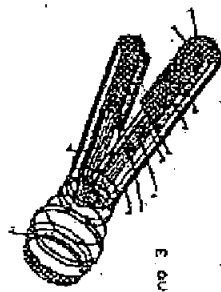
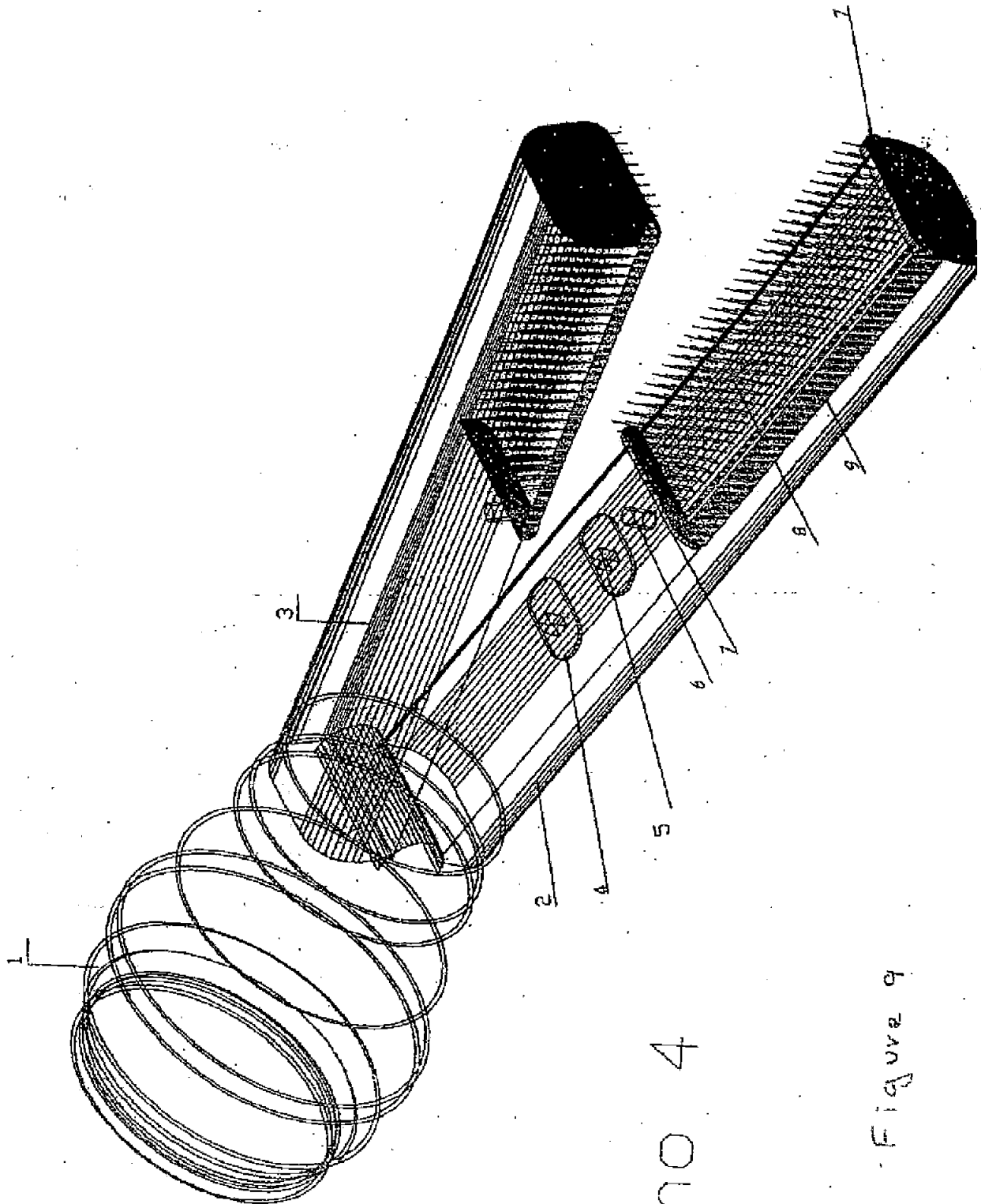


Figure 8

62



no 4

Figure 9

HAIR DRYER COMBO

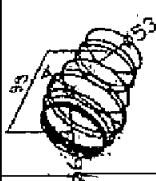
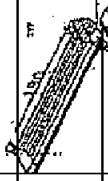
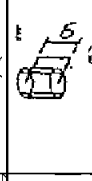
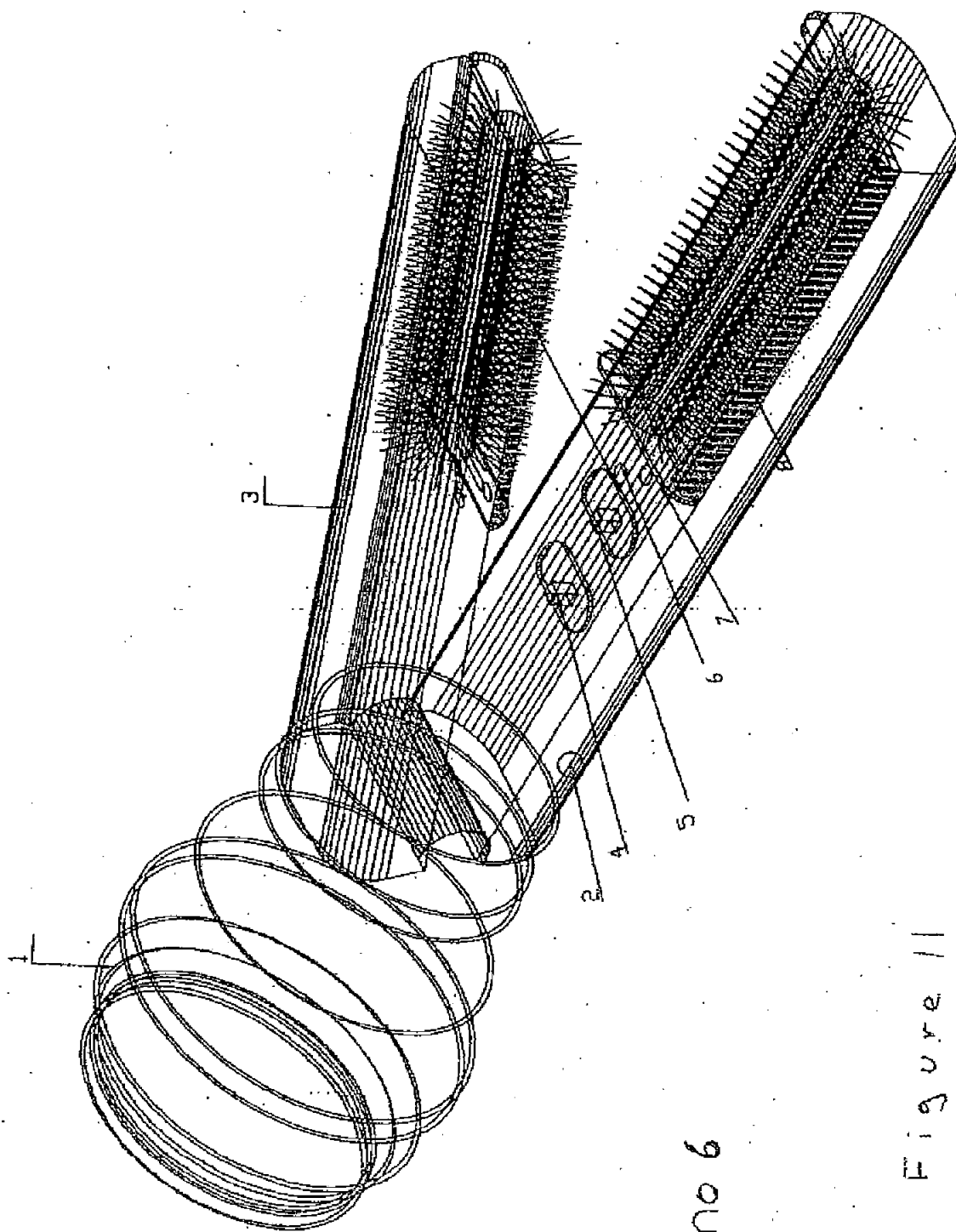
BRISTLES + AIR					ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL	DIMENSIONS ALL IN MILLIMETERS
					1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER	
					2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER	
					3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER	
					4	BLOWDRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
					5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
					6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER	
					7	BACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER	
					8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER	
					9	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER	

Figure 10

ALL DIMENSIONS, SHAPES AND COLORS ARE SUBJECTED TO UNRESTRICTED VARIATIONS

64



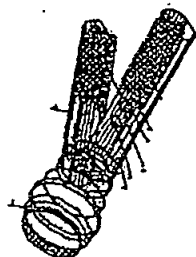
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Figure 11

65

HAIR DRYER COMBO

ROUND BRUSH+AIR					
ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER
2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER
4	BLOWDRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER
7	BACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER
9	AIR CHUTE		TRANSFER HOT/AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER
ALL DIMENSIONS ARE SUBJECTED TO UNRESTRICTED VARIATIONS					



no 6

ROUND BRUSH+AIR

Figure 12

66

HAIR DRYER COMBO

BRISTLES+2HOTPLATES+AIR

ITEM No	NAME	SHAPE	FUNCTION	COLOR	MATERIAL	DIMENSIONS ALL IN MILLIMETERS
1	MOTOR		TO PUMP FORCE AIR THROUGH	?	PLASTIC OR OTHER	
2	AIR TUBE		TO TRANSMIT AIR BETWEEN MOTOR AND BRUSH HOUSING	?	ELASTIC TUBING OR OTHER	IS IDEAL 200MM LONG
3	BUTTON HOUSING		HAND GRIP	?	PLASTIC OR OTHER	
4	TIP HOUSING		HAND GRIP	?	PLASTIC OR OTHER	AS BOTTOM OF BRUSH HOUSING
5	BLINDSWITCH SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
6	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
7	STOP INDOO		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER	
8	BACKING PLATE AND 2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER	
9	BRISTLES		HAIR BRUSH	?	SELECTED MATERIAL OR OTHER	
10	AIR CHUTE		TO TRANSMIT HOT AIR CORRECTLY ONTO HAIR	?	PLASTIC OR OTHER	
11	HOT PLATES AND 2		HEATS UP TO STRAIGHTEN HAIR	?	METAL / CERAMIC OR OTHER	
12	ELECTRICAL CORD		POWER SUPPLY	?	PVC OR OTHER	IS IDEAL 200MM LONG
13	HOT PLATES AND 2		HEATS UP TO STRAIGHTEN HAIR	?	METAL / CERAMIC OR OTHER	

ALL DIMENSIONS, SHAPES AND COLORS ARE SUBJECTED TO UNRESTRICTED VARIATIONS

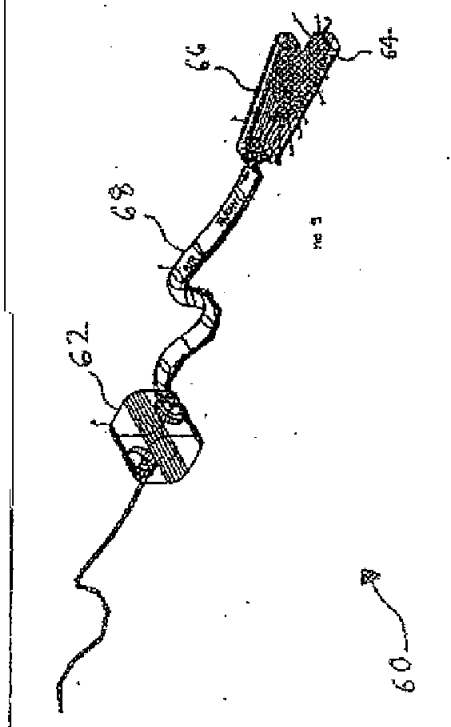
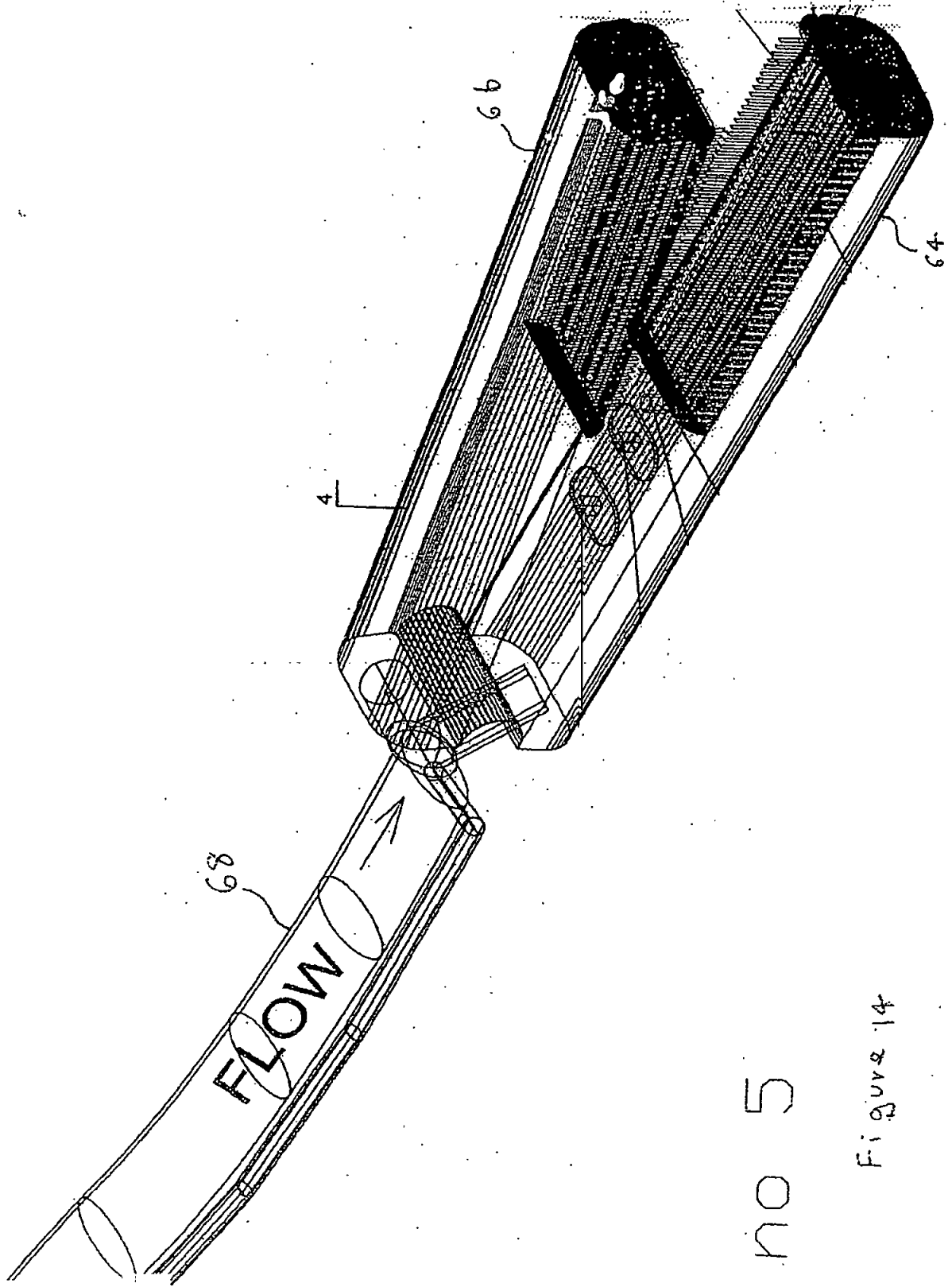


Figure 13

69



no 5
Figure 14

68

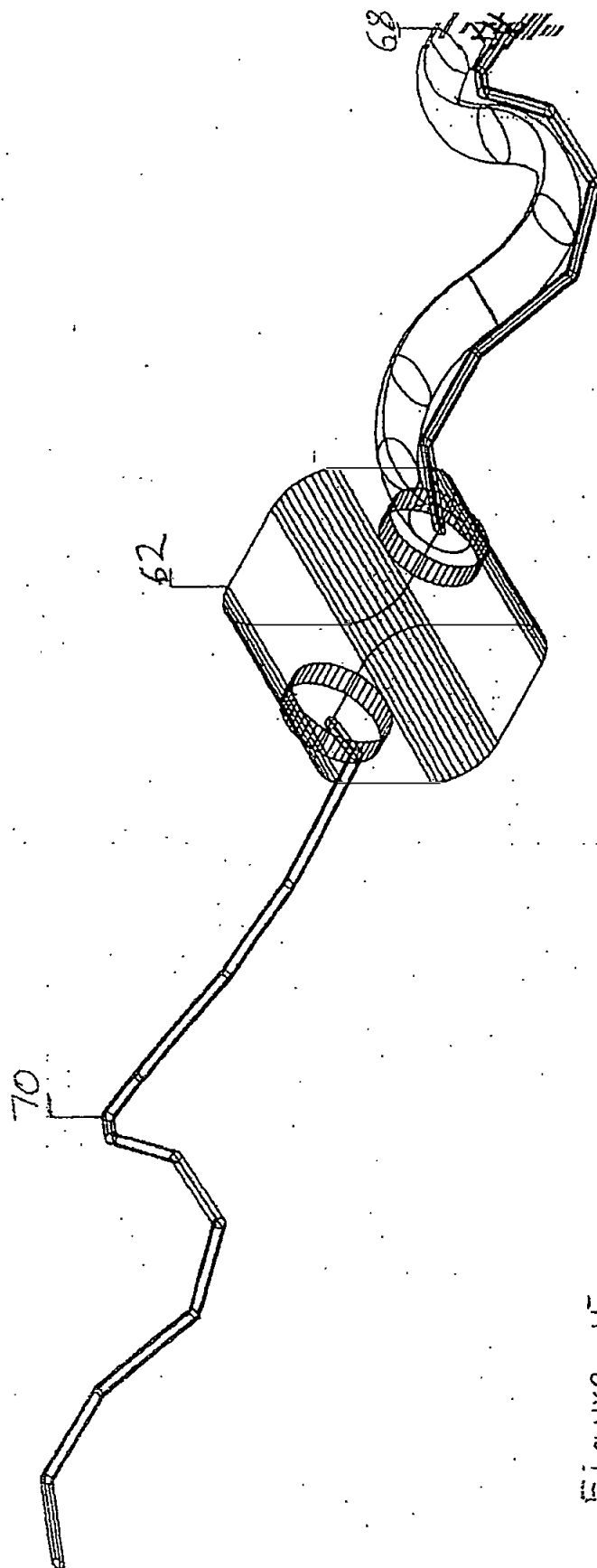


Figure 15

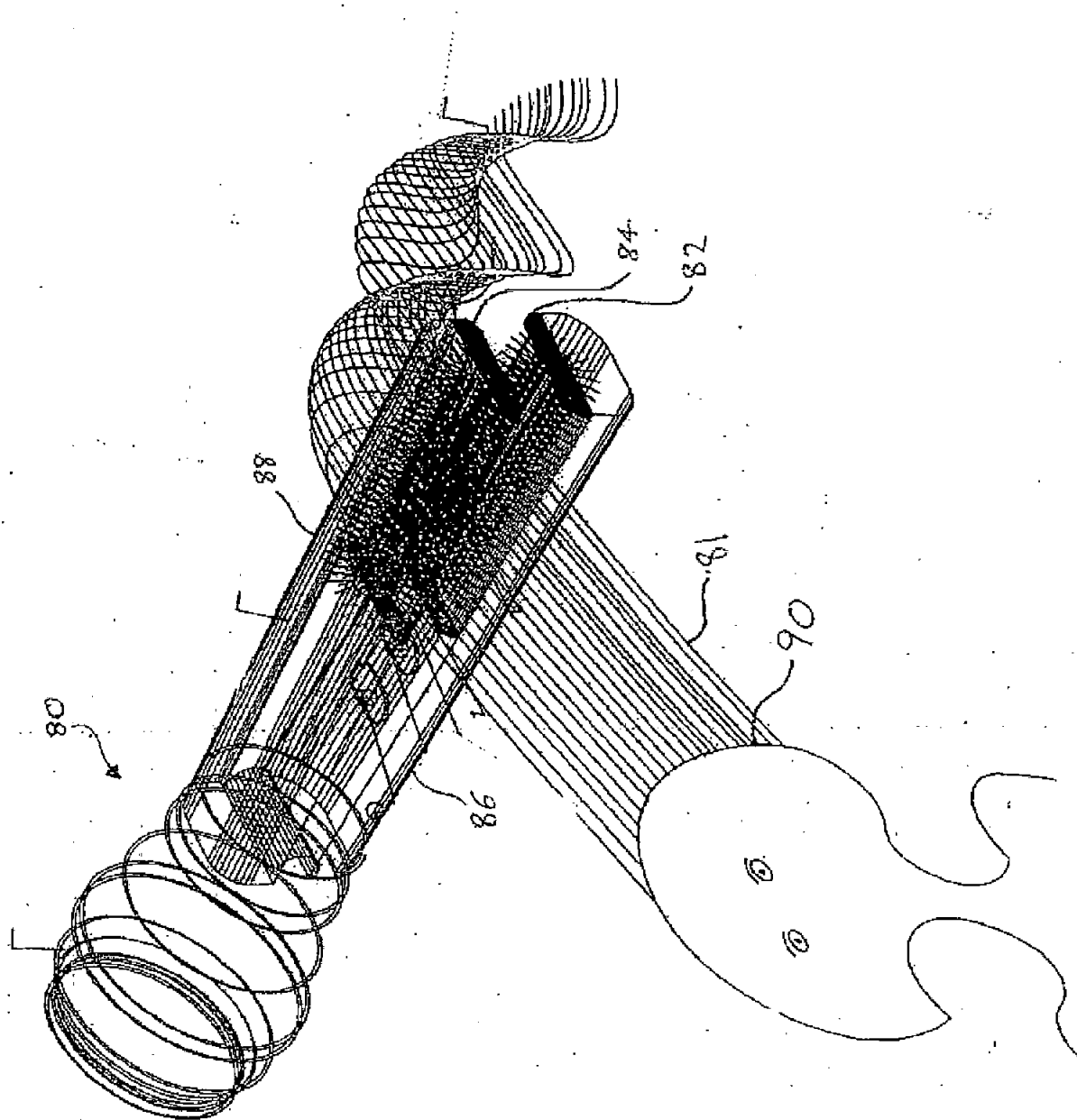


Figure 16

70

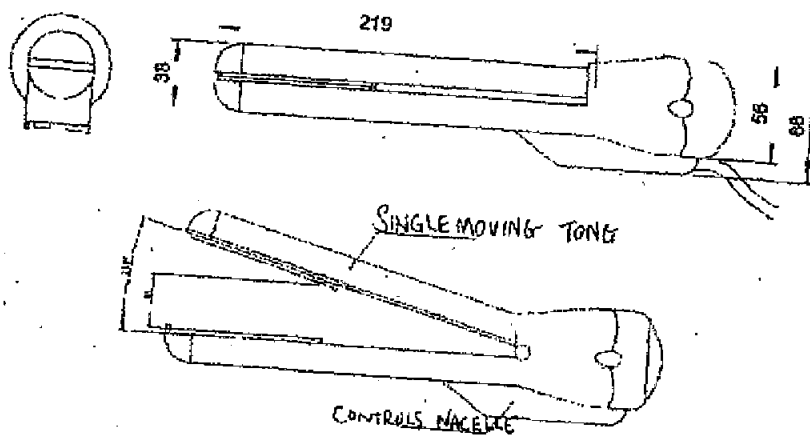


FIGURE 17

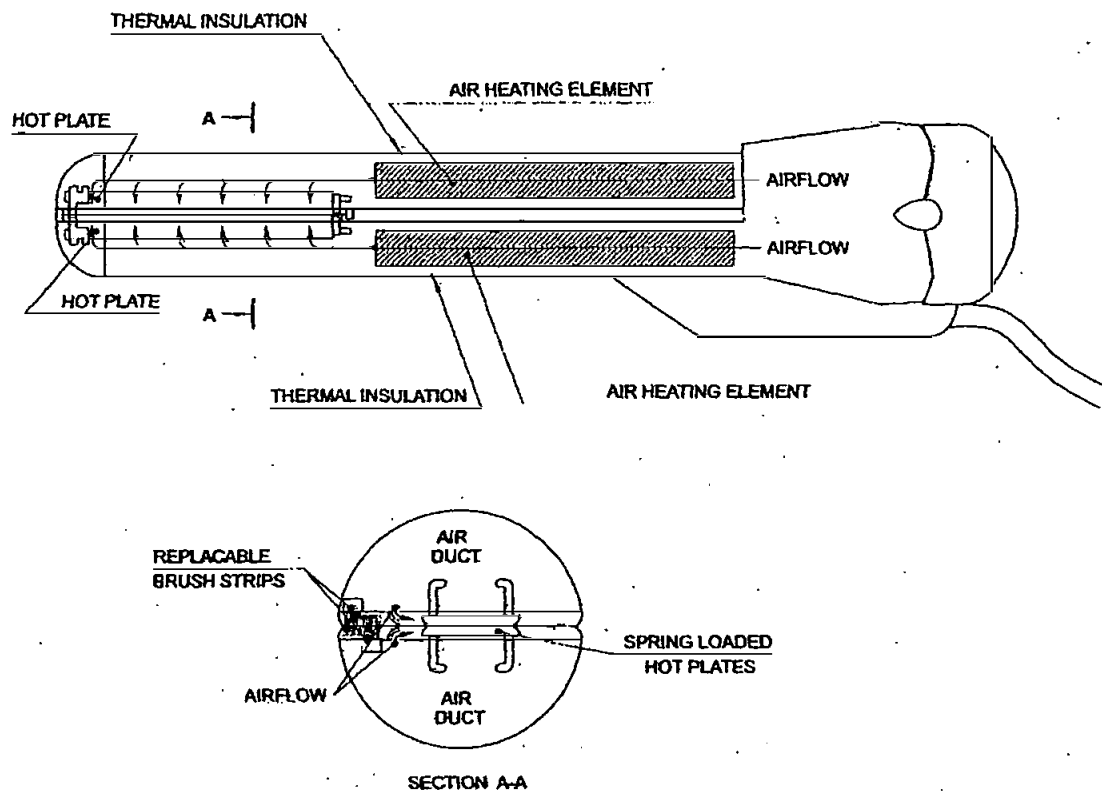


FIGURE 18

INTERNATIONAL SEARCH REPORT

International application No. **PCT/AU2006/001244**

A. CLASSIFICATION OF SUBJECT MATTER		
Int. Cl. A45D 20/50 (2006.01) A45D 1/14 (2006.01) A45D 1/04 (2006.01) A45D 2/40 (2006.01)		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI: IPC A45d 1/-, 2/-, 6/-, 7/02, 20/-, 24/- and blow, air, bristle, hot and like terms		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,	US 4023578 A (BUHLER) 17 May 1977 Whole document	1, 3, 4, 6-9, 14
Y	Derwent Abstract accession no. 2003-489616/46, class P24, JP 2003174920 A (SUZUKI) 24 June 2003	5, 10, 12, 13
Y	Abstract and figures; machine translation of the JP document	2, 11
Y	Derwent abstract accession no. 2004-548443/53, Class P24, JP 2004216179 A (KYUSHU HITACHI MAXELL KK) 5 August 2004	2, 11
Y	Abstract and figures; machine translation of the JP document	
Y	US 3150393 A (TAYLOR ET AL) 29 September 1964 Whole document	12
☒ Further documents are listed in the continuation of Box C ☒ See patent family annex		
* Special categories of cited documents:		
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search 14 November 2006	Date of mailing of the international search report 23 NOV 2006	
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN, ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized officer VENKAT IYER Telephone No : (02) 6283 2144	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2006/001244

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4280517 A (IHARA) 28 July 1981 Whole document	12
Y	DE 8717038 U (ABC-ELECTROGERATE VOLZ, GMBH) 11 February 1988 Whole document	5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2006/001244

Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: III

This International Application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept.

In assessing whether there is more than one invention claimed, I have given consideration to those features which can be considered to potentially distinguish the claimed combination of features from the prior art. Where different claims have different distinguishing features they define different inventions.

This International Searching Authority has found that there are different inventions as follows:

- Claim 1 It is considered that a hair styling device comprising an elongate arm having a hair receiving surface extending along at least part of the arm; an air passageway coupled to the arm and being in fluid communication with an elongate air outlet associated with the hair receiving surface, the elongate air outlet being disposed substantially parallel to the arm and configured to blow air substantially along the length of the hair; and brush means attached to the arm at or adjacent the hair receiving surface comprises a first distinguishing feature.
- Claim 2 It is considered that a hair styling device comprising a pair of tongs including two elongate arms being closable with respect to one another, each of the arms having a hair receiving surface; a heating element connected to at least one of the hair receiving surfaces; an air passageway coupled to at least one of the arms and being in fluid communication with an air outlet associated with the hair receiving surface of that arm; air heating means operatively coupled to the air passageway for heating air blown through the passageway and exiting the elongate air outlet; and brush means attached to at least one of the arms at or adjacent the hair receiving surface comprises a second distinguishing feature.

PCT Rule 13.2, first sentence, states that unity of invention is only fulfilled when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. PCT Rule 13.2, second sentence, defines a special technical feature as a feature which makes a contribution over the prior art.

Each of the abovementioned claims has a different distinguishing feature and they do not share any feature which could satisfy the requirement for being a special technical feature. Because there is no common special technical feature it follows that there is no technical relationship between the identified inventions. Therefore the claims do not satisfy the requirement of unity of invention *a priori*.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2006/001244

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
PLEASE SEE EXTRA SHEET

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

Information on patent family members

PCT/AU2006/001244

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
US	4023578	DE	2526374	FR	2290173		
JP	2003174920	NONE					
JP	2004216179	NONE					
US	3150393	NONE					
US	4280517	DE	2535421	DE	2559697	FR	2281736
		GB	1519042	GB	1519043	JP	51125566
		US	4250902				
DE	8717038	NONE					
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.							
END OF ANNEX							

PATENT COOPERATION TREATY

377

From the:
INTERNATIONAL SEARCHING AUTHORITY

To:
Joseph Mourad
2/63 Pile St
Marrickville
Sydney, NSW 2204
Australia

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) **23 NOV 2006**

Applicant's or agent's file reference
2005904653

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/AU2006/001244

International filing date (day/month/year)
25 August 2006

Priority date (day/month/year)
26 August 2005

International Patent Classification (IPC) or both national classification and IPC
Int. Cl.

A45D 20/50 (2006.01) A45D 1/14 (2006.01)
A45D 1/04 (2006.01) A45D 2/40 (2006.01)

Applicant
MOURAD, Joseph

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU
AUSTRALIAN PATENT OFFICE
PO BOX 200, WODEN ACT 2606, AUSTRALIA
E-mail address: **pct@ipaustralia.gov.au**
Facsimile No. (02) 6285 3929

Date of completion of this opinion
14 November 2006

Authorized Officer
VENKAT IYER
Telephone No. (02) 6283 2144

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/AU2006/001244

18

Box No. 1 Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:
 - ☒ The international application in the language in which it was filed
 - ☐ A translation of the international application into, _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/AU2006/001244

29

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the applicable time limit:
 - ☐ paid additional fees
 - ☐ paid additional fees under protest and; where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ not paid additional fees
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
 - ☐ complied with
 - ☒ not complied with for the following reasons:

This International Searching Authority has found that there are different inventions as follows:

Claim 1 It is considered that a hair styling device comprising an elongate arm having a hair receiving surface extending along at least part of the arm; an air passageway coupled to the arm and being in fluid communication with an elongate air outlet associated with the hair receiving surface, the elongate air outlet being disposed substantially parallel to the arm and configured to blow air substantially along the length of the hair; and brush means attached to the arm at or adjacent the hair receiving surface comprises a first distinguishing feature.

Claim 2 It is considered that a hair styling device comprising a pair of tongs including two elongate arms being closable with respect to one another, each of the arms having a hair receiving surface; a heating element connected to at least one of the hair receiving surfaces; an air passageway coupled to at least one of the arms and being in fluid communication with an air outlet associated with the hair receiving surface of that arm; air heating means operatively coupled to the air passageway for heating air blown through the passageway and exiting the elongate air outlet; and brush means attached to at least one of the arms at or adjacent the hair receiving surface comprises a second distinguishing feature.

PCT Rule 13.2, first sentence, states that unity of invention is only fulfilled when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. PCT Rule 13.2, second sentence, defines a special technical feature as a feature which makes a contribution over the prior art.

Each of the abovementioned claims has a different distinguishing feature and they do not share any feature which could satisfy the requirement for being a special technical feature. Because there is no common special technical feature it follows that there is no technical relationship between the identified inventions. Therefore the claims do not satisfy the requirement of unity of invention *a priori*

4. Consequently, this opinion has been established in respect of the following parts of the international application:
 - ☒ all parts
 - ☐ the parts relating to claims Nos.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2006/001244

Box No. V **Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims 2, 5, 10 - 13	YES
	Claims 1, 3, 4, 6 - 9, 14	NO
Inventive step (IS)	Claims	YES
	Claims 1 - 14	NO
Industrial applicability (IA)	Claims 1 - 14	YES
	Claims	NO

2. Citations and explanations:

The following documents are considered to be particularly relevant:

D1: US 4023578

D2: JP 2003174920

D3: JP 2004216179

D4: US 3150393

D5: US 4280517

D6: DE 8717038 U

NOVELTY (N): Claim 1, 3, 4, 6 - 9, 14

D1 discloses a hair curling appliance having an elongate arm (19) having

- a hair receiving surface (surface of the metal cage 19)
- an air passageway (nozzle 8) coupled to the arm and being in fluid communication with an elongate air outlet (longitudinal slots 21) associated with the hair receiving surface
- the elongate outlet is parallel to the arm (as seen in the figures)
- configured to blow air substantially along the length of the hair: the arrangement of the slots will blow air along the lengthwise direction of the hair
- brush means are the bristles 14

Hence all the features of claim 1 are disclosed.

Claim 3 and 4 - fan 2 is attached to the arm in a fan casing rigidly mounted to the arm

Claim 6 and 7 - air heater is provided by electrical resistance 4

Claim 8 - bristles 14 as seen in figure 1

Claim 9 - D1 at column 2 lines 33 - 37 implicitly teaches the use of rotatable brush with motor means.

Claim 14 - see column 2, lines 60 - 62 for mains power

INVENTIVE STEP (IS): Claims 1 - 14

Claims 1, 3, 4, 6 - 9, 14 : as above

(Continued on supplemental box)

la

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International Application No.

PCT/AU2006/001244

81

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

Claims 2 and 11:

D2 discloses with reference to the figures all the features of claim 2 such as the pair of tongs including elongate arms (11, 12) closable with respect to one another each arm having a hair receiving surface; air passageway 22 in communication with elongate air outlets 18; hot air blown through passage 22; brush means on the elongated arms.

However this document does not disclose a heating element connected to at least one hair receiving surface.

D3 which discloses all the above features including a heating element attached to hair receiving arm 5 does not disclose brush means attached to at least one arm. It discloses a comb arrangement instead.

It would be obvious to the skilled addressee to combine the above documents in order to arrive at all the features disclosed in Claim 2(heating element) and Claim 11(biasing means).

Claim 5:

D6 and D1 combined disclose the features of a fan mounted to a fan casing connected to a flexible pipe which is a continuation of the air passageway.

Claim 12:

D4 or D5 disclose a fan mounted in a rigid casing and where the brush means is detachable. These documents combined with D1 disclose all the features of this claim.

Claim 13:

This claim is not inventive in the light of general knowledge in the art that it is well-known to adapt electrical appliances to battery power instead of mains power.

Claim 10:

The features of the hair receiving surface being spring loaded relative to the arm is obvious in the light of general knowledge in the art of using materials which have this ability, such as plastics.

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

Date of mailing (day/month/year) 02 October 2006 (02.10.2006)	To: MOURAD, Joseph 2/63 Pile St Marrickville Sydney, NSW 2204 AUSTRALIE
Applicant's or agent's file reference 2005904653	
International application No. PCT/AU2006/001244	
International publication date (day/month/year) Not yet published	
Applicant MOURAD, Joseph	

IMPORTANT NOTIFICATION

International filing date (day/month/year)
25 August 2006 (25.08.2006)Priority date (day/month/year)
26 August 2005 (26.08.2005)

- By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- (If applicable)* The letters "NR" appearing in the right-hand column denote a priority document which, on the date of mailing of this Form, had not yet been received by the International Bureau under Rule 17.1(a) or (b). Where, under Rule 17.1(a), the priority document must be submitted by the applicant to the receiving Office or the International Bureau, but the applicant fails to submit the priority document within the applicable time limit under that Rule, **the attention of the applicant is directed** to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- (If applicable)* An asterisk (*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b) (the priority document was received after the time limit prescribed in Rule 17.1(a) or the request to prepare and transmit the priority document was submitted to the receiving Office after the applicable time limit under Rule 17.1(b)). Even though the priority document was not furnished in compliance with Rule 17.1(a) or (b), the International Bureau will nevertheless transmit a copy of the document to the designated Offices, for their consideration. In case such a copy is not accepted by the designated Office as the priority document, Rule 17.1(c) provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
26 August 2005 (26.08.2005)	2005904653	AU	20 September 2006 (20.09.2006)

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Dorothee Mülhausen

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Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/AU2006/001244

International filing date: 25 August 2006 (25.08.2006)

Document type: Certified copy of priority document

Document details: Country/Office: AU
Number: 2005904653
Filing date: 26 August 2005 (26.08.2005)

Date of receipt at the International Bureau: 20 September 2006 (20.09.2006)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse

24

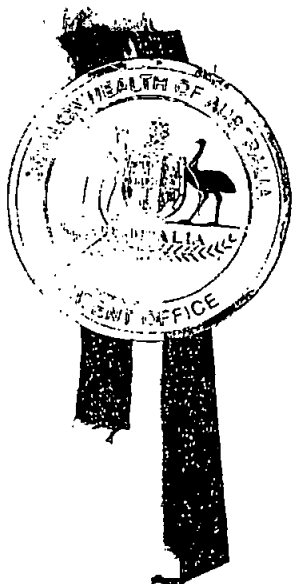
PCT/AU2006/001244



Australian Government

Patent Office
Canberra

I, SHERYL WERCHANOWSKI, TEAM LEADER EXAMINATION
SUPPORT AND SALES hereby certify that annexed is a true copy of the
Provisional specification in connection with Application No. 2005904653 for a
patent by JOSEPH MOURAD as filed on 26 August 2005.



WITNESS my hand this
Eleventh day of September 2006

A handwritten signature in black ink, appearing to read 'Sheryl Werchanowski'.

SHERYL WERCHANOWSKI
TEAM LEADER EXAMINATION
SUPPORT AND SALES

98

2005904653 26 Aug 2005

AUSTRALIA
Patents Act 1990

PROVISIONAL SPECIFICATION

HAIRDRYER BRISTLE AND HOTPLATE STRAIGHTENER

The invention is described in the following statement

56

26 Aug 2005

2005904653

HAIRDRYER BRISTLE AND HOTPLATE STRAIGHTENER

This invention relates to improvements in devices for blowdrying and straightening hair until hair is washed or wet again with water.

1. For many people the inability to dry their own hair smooth straight causing them frustration and inconvenience in not being able to look their best in grooming as possible.
2. There have been other proposals and attempts to dry and straighten hair but no proposal has been able to deliver this result; example, one previous device was a dryer with removable attached flat brush with holes existed amongst the bristle that insufficient air blew through the holes causing the hair to disperse in all wrong directions instead of blowing in the same direction as the hair which is the direction towards away from the scalp towards the end of the hair. The said attempt of the previous proposed device did not achieve the desired result in drying and straightening the hair at the same time to a professional or acceptable standard.
3. The problems including insufficient air, heat, wrong bristles and poor grip to pull and hold hair straight with air blowing in the wrong direction has been overcome by this present invention Hairdryer Bristle And Hotplate Straightener, which provides a separate chute for blowing out sufficient air into the same direction as the hair away from the scalp towards the end of the hair as well as a hotplate consisting of ceramic or other metal material heating hair to a sufficient temperature to smoothen hair straight and shiny together at the same time as the hot air blowing from the same invention device, with bristles gripping and stretching hair away from the scalp or head working three functions together at the same time including hot plate/plates in between bristles which is a separate heating device not only hot air. Bristle rows grabbing and pulling hair away from scalp.
4. The invention combination slightly varies meaning at bristles' point of contact with hair
 - One style of invention consists of an air chutes and a flat bristled rows of brush.
 - Another style of the same invention consists of an air chute and a spinning round bristle brush.
 - The third style consists of an air chute flat bristled brush and hotplates in between the bristles or next to them.
 - The fourth style is an air chute flat bristle and a spinning round bristle brush.

2005904653 26 Aug 2005

5. In another form of the invention, the way it grips the hair is like a set of jaws coming or closing together gripping and stretching the hair straight from both sides, blowing air from chute on both sides and round bristle brushes spinning on both sides stretching hair straight away from scalp, bearing in mind that flat bristle and round bristle brushes working at the same time with the hot air and the hot plate can also work individually.

The materials used in the invention are made of high heat tolerant plastic, metal, aluminium, ceramic, wire, bristle and other.

Dimensions to be determined.

Colour to be determined.

Design and shape subject to change.

2005904653 26 Aug 2005

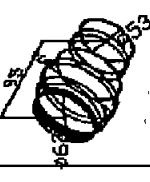
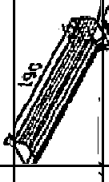
FUNCTIONS OF INVENTION

Item 1 is the housing for the motor producing air blowing it through Item No.2 and 3 producing hot air coming out of Item No.9 onto Item No.8 and 10 achieving dry, straight or wavy hair from wet/dry messy stage.

With this invention the motor forcing hot air into the housing is both attached onto the housing and held in hand when used to style hair and is also designed to be detached as a separate unit and not held in hand while styling hair but attached to the motor is an air tube transferring hot air from the motor to the housing which is hand held making the device lighter to work with. The specification sheet No.5 demonstrates this motion.

2005904653 26 Aug 2005

BRUSH+2HOTPLATES+AIR

ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL	DIMENSIONS ALL IN MILLIMETERS
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER	
2	BOTTOM HOUSING		HAND GRIP.	?	PLASTIC OR OTHER	
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER	
4	BLOWDRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER	
7	SACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER	
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER	
9	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER	
10	HOT PLATE-1 and -2		HEATS UP TO STRAIGHTEN HAIR	?	METAL OR OTHER	

ALL DIMENSIONS, SHAPES AND MATERIALS ARE SUBJECT TO UNRESTRICTED VARIATIONS

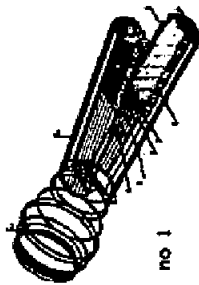
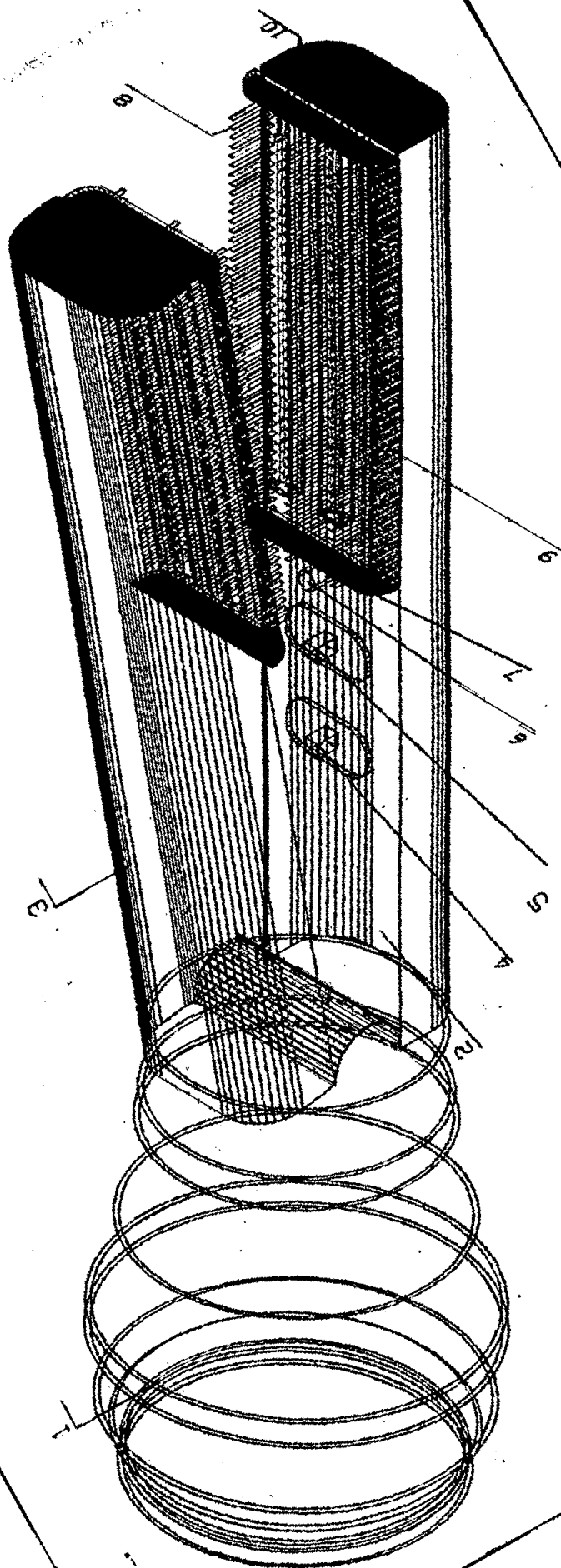


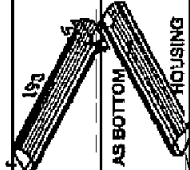
FIG. 1



2005904653 26 Aug 2005

2005904653 26 Aug 2005

BRUSH+HOTPLATE+AIR

ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL	DIMENSIONS ALL IN MILLIMETERS
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER	
2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER	
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER	AS BOTTOM HOUSING
4	BLOW DRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER	
7	BACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER	
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER	
9	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER	
10	HOT PLATE		HEATS UP TO STRAIGHTEN HAIR	?	METAL OR OTHER	

ALL DIMENSIONS, SHAPES AND MATERIALS ARE SUBJECTED TO UNRESTRICTED VARIATIONS

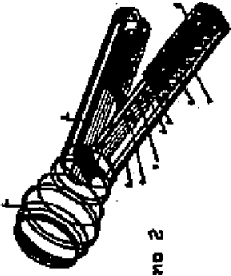
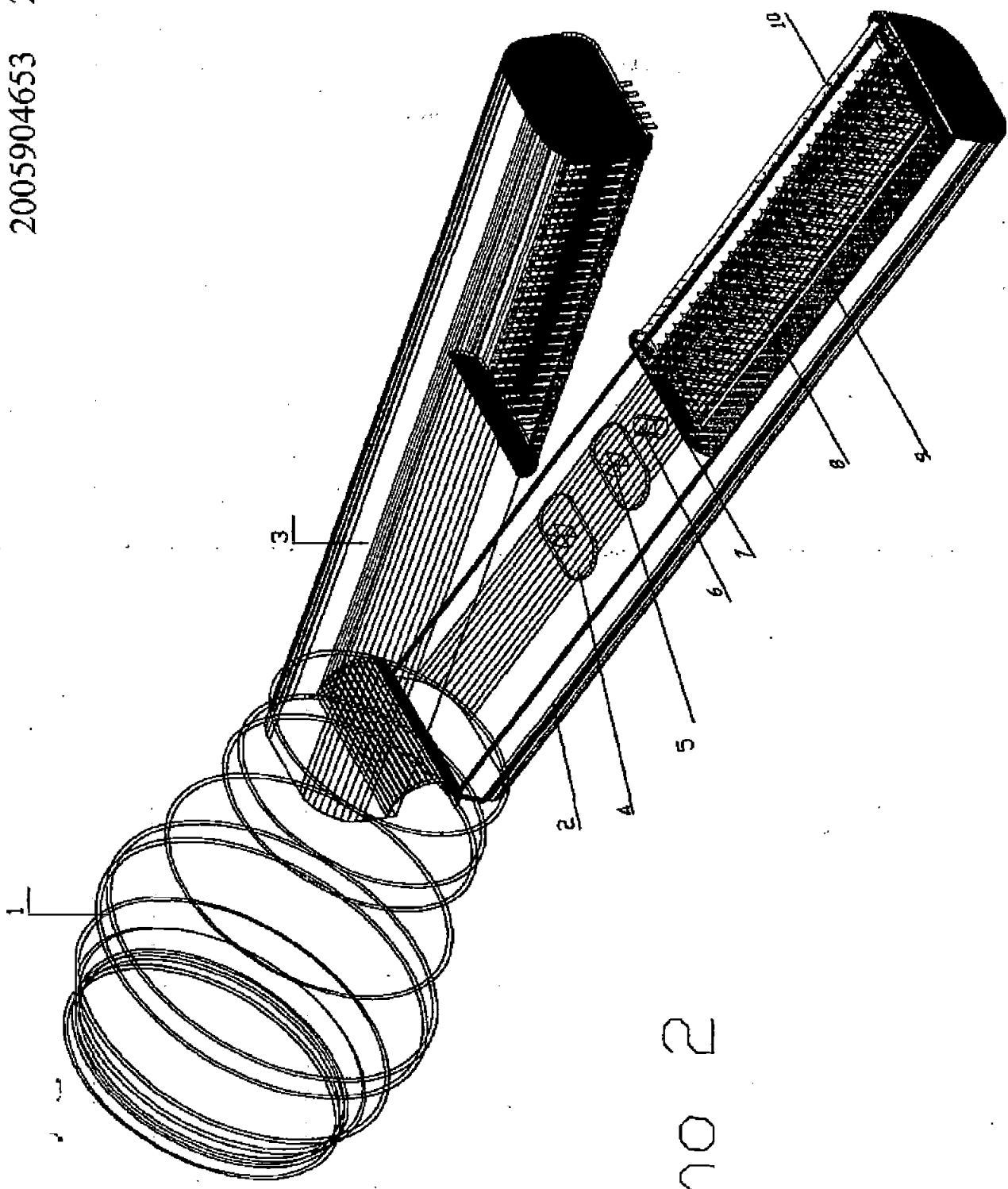


FIG 2

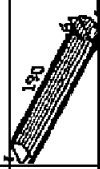
2005904653 26 Aug 2005



no 2

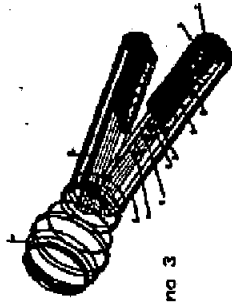
2005904653

BRUSH+HOTPLATE+AIR

ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL	DIMENSIONS ALL IN MILLIMETERS
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER	
2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER	
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER	AS BOTTOM HOUSING
4	BLOW DRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER	
7	BACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER	
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER	
9	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER	
10	HOT PLATE		HEATS UP TO STRAIGHTEN HAIR	?	METAL OR OTHER	

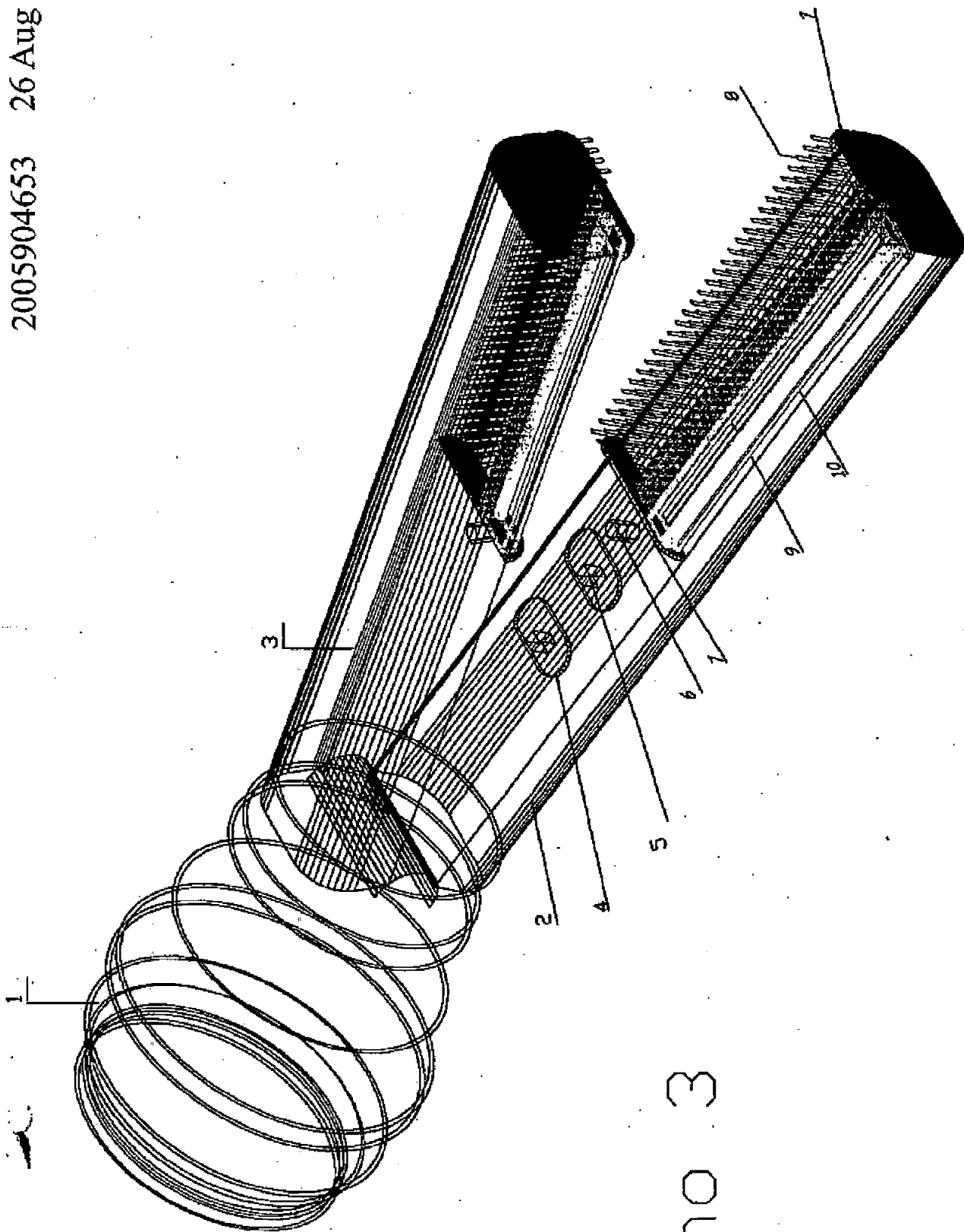
ALL DIMENSIONS, SHAPES AND MATERIAL ARE SUBJECT TO UNRESTRICTED VARIATIONS

ALL DIMENSIONS, SHAPES AND MATERIAL ARE SUBJECT TO UNRESTRICTED VARIATIONS



32

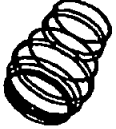
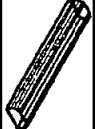
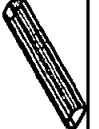
2005904653 26 Aug 2005

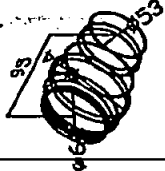
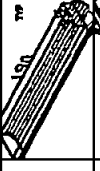


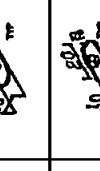
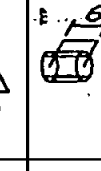
no 3

2005904653 26 Aug 2005

HAIR DRYER COMBO

BRISTLES+AIR					
ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER
2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER
4	BLOWDRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER
7	BACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER
9	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER

DIMENSIONS ALL IN MILLIMETERS







ALL DIMENSIONS, SHAPES AND COLORS ARE SUBJECT TO UNRESTRICTED VARIATIONS

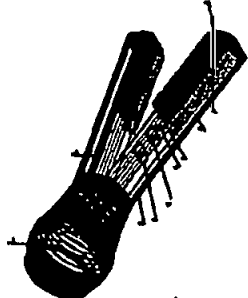
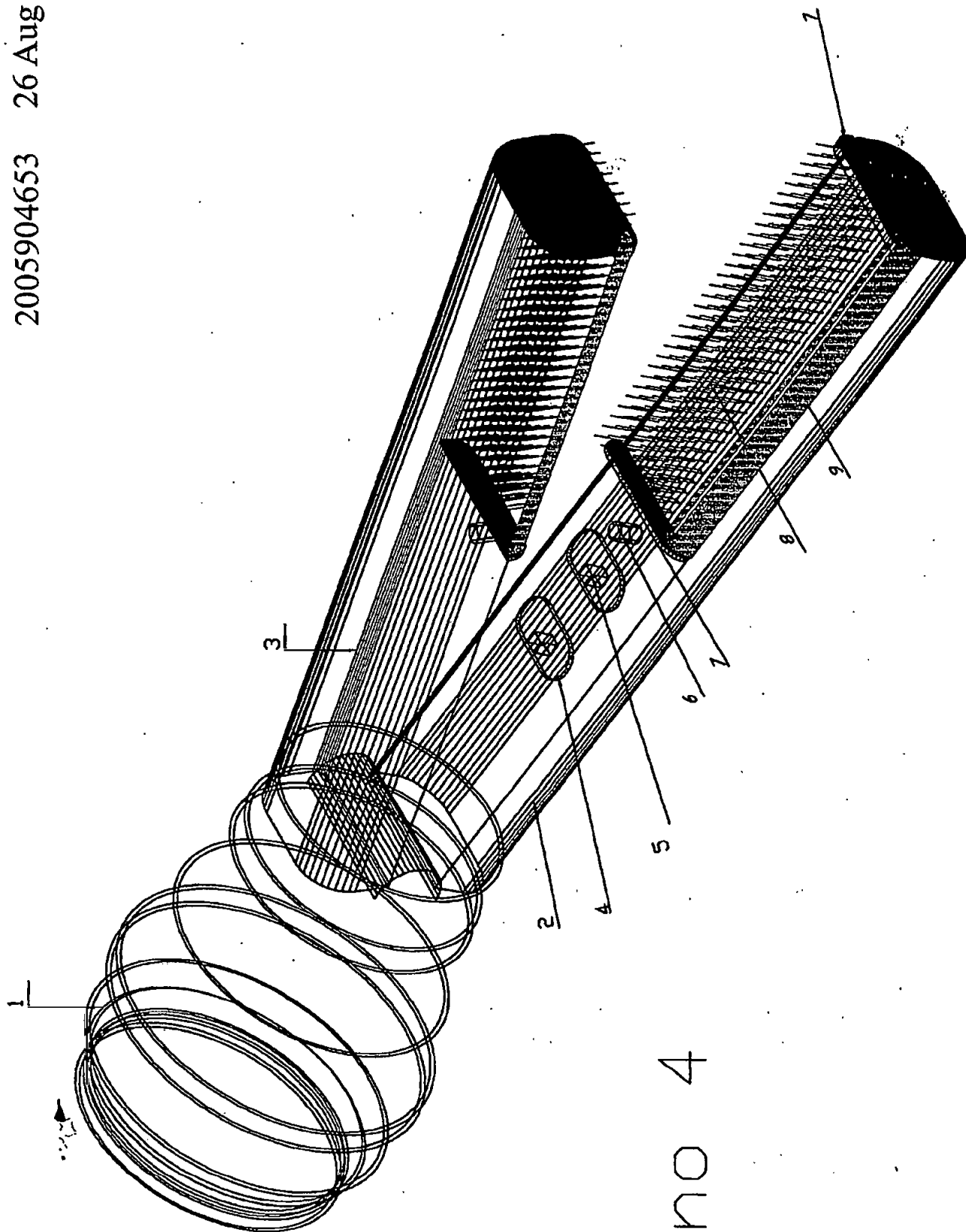


FIG 4



2005904653 26 Aug 2005

HAIR DRYER COMBO

BRISTLES+2HOTPLATES+AIR

ITEM No	NAME	SHAPE	FUNCTION	COLOR	MATERIAL	DIMENSIONS ALL IN MILLIMETERS
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER	
2	AIR TUBE		TO TRANSFER AIR BETWEEN MOTOR AND BRUSH HOUSING	?	PLASTIC OR OTHER	Ø 32MM 200MM LONG
3	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER	
4	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER	AS BOTTOM HOUSING
5	BLOWDRIVER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
6	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER	
7	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER	
8	BACKING PLATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER	
9	BRISTLES		HAIR BRUSH	?	SELECTED MATERIAL OR OTHER	
10	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER	
11	HOT PLATE-1 AND-2		HEATS UP TO STRAIGHTEN HAIR	?	METAL / CERAMIC OR OTHER	
12	ELECTRICAL CORD		POWER SUPPLY	?	PVC OR OTHER	Ø 8MM 2000MM LONG
13	HOT PLATE-1 AND-2		HEATS UP TO STRAIGHTEN HAIR	?	METAL / CERAMIC OR OTHER	

ALL DIMENSIONS, SHAPES AND COLORS ARE SUBJECTED TO UNRESTRICTED VARIATIONS

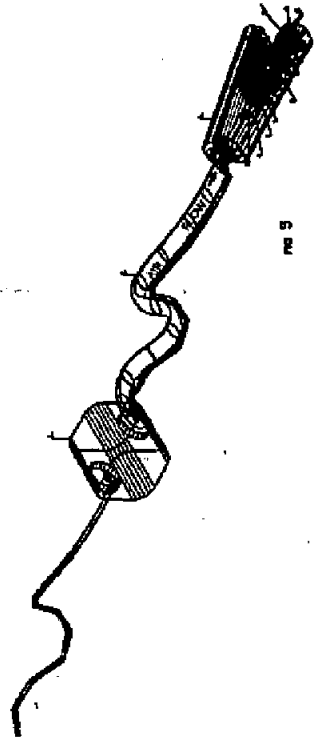
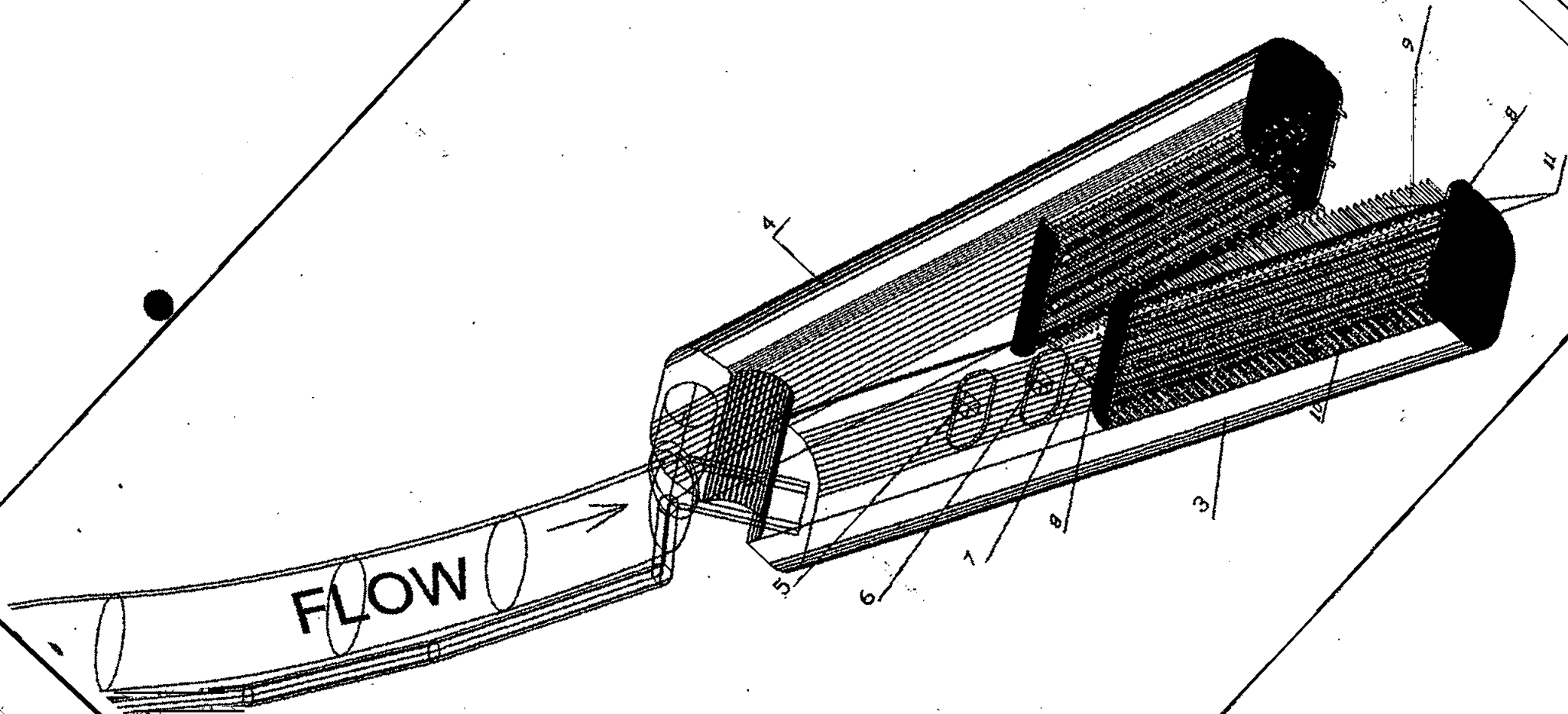


FIG 3

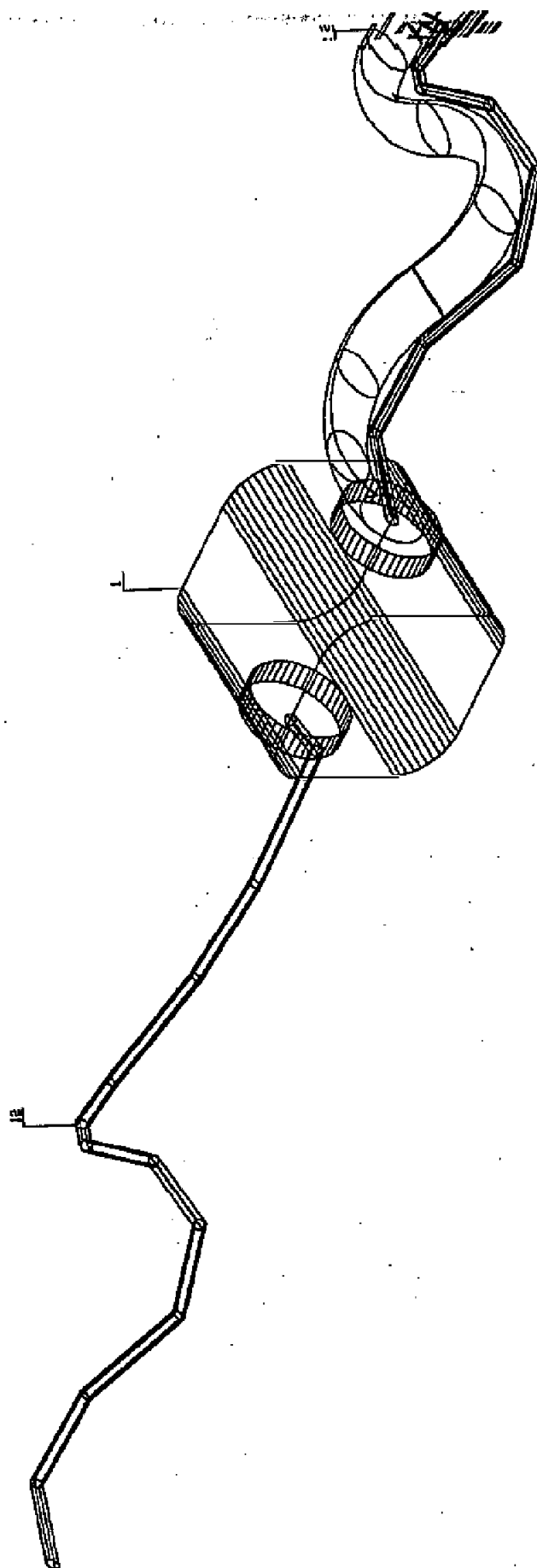
92

2005904653 26 Aug 2005



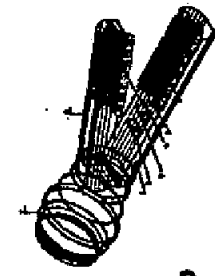
no 5

2005904653 26 Aug 2005



HAIR DRYER COMBO

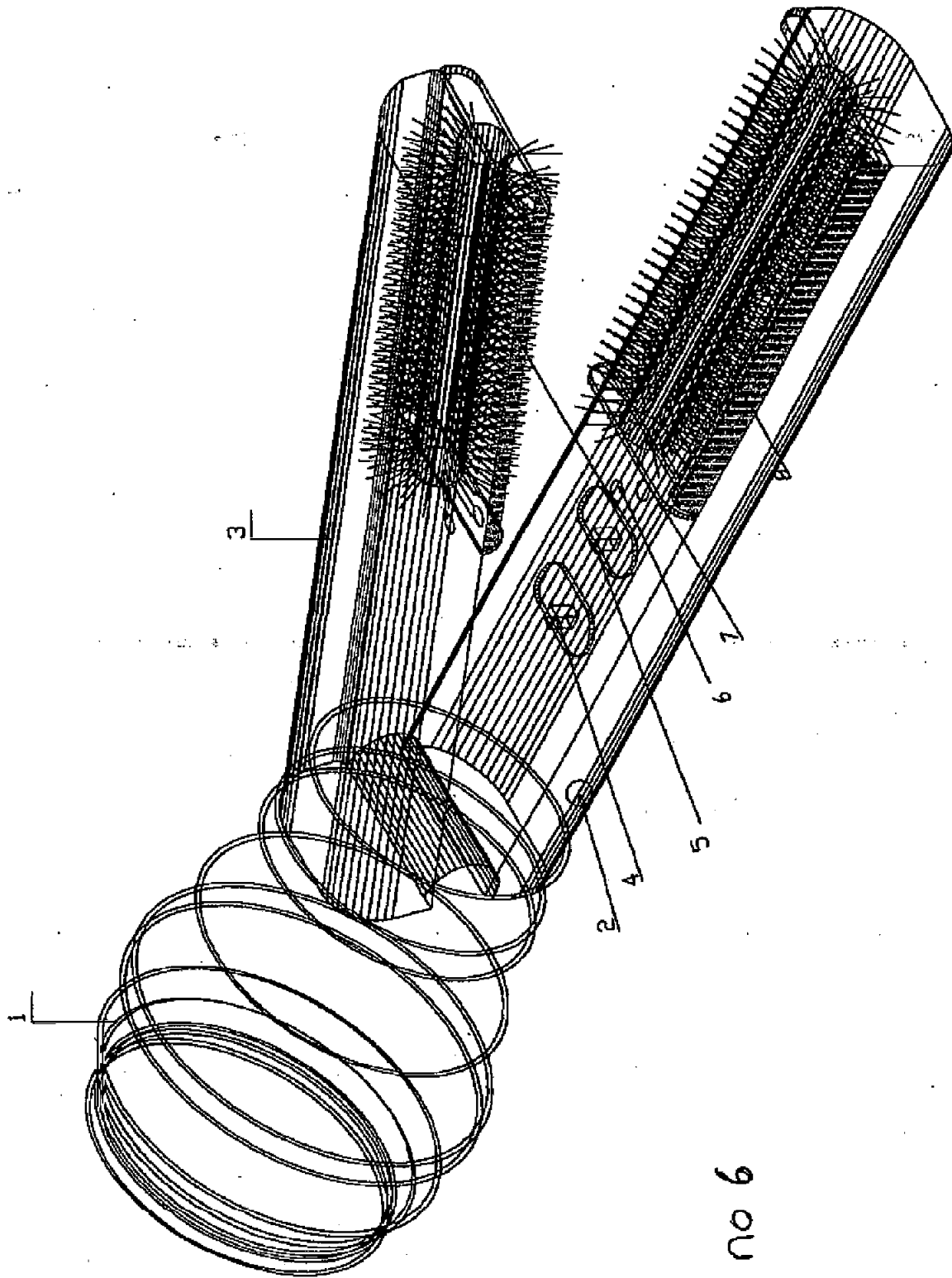
ROUND BRUSH+AIR					
ITEM NO	NAME	SHAPE	FUNCTION	COLOR	MATERIAL
1	MOTOR		TO FAN FORCE AIR THROUGH	?	PLASTIC OR OTHER
2	BOTTOM HOUSING		HAND GRIP	?	PLASTIC OR OTHER
3	TOP HOUSING		HAND GRIP	?	PLASTIC OR OTHER
4	BLOWDRYER SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
5	HOT PLATE SWITCH		TURN ON/OFF	?	PLASTIC OR OTHER
6	STOP KNOB		HOUSING STOP ADJUSTMENT	?	PLASTIC OR OTHER
7	BACKING PATE-1 AND-2		AIR FLOW ALIGNMENT	?	PLASTIC OR OTHER
8	BRISTLES		HAIR BRUSH	?	PLASTIC OR OTHER
9	AIR CHUTE		TRANSFER HOT AIR DIRECTLY ONTO HAIR	?	PLASTIC OR OTHER



NO 6

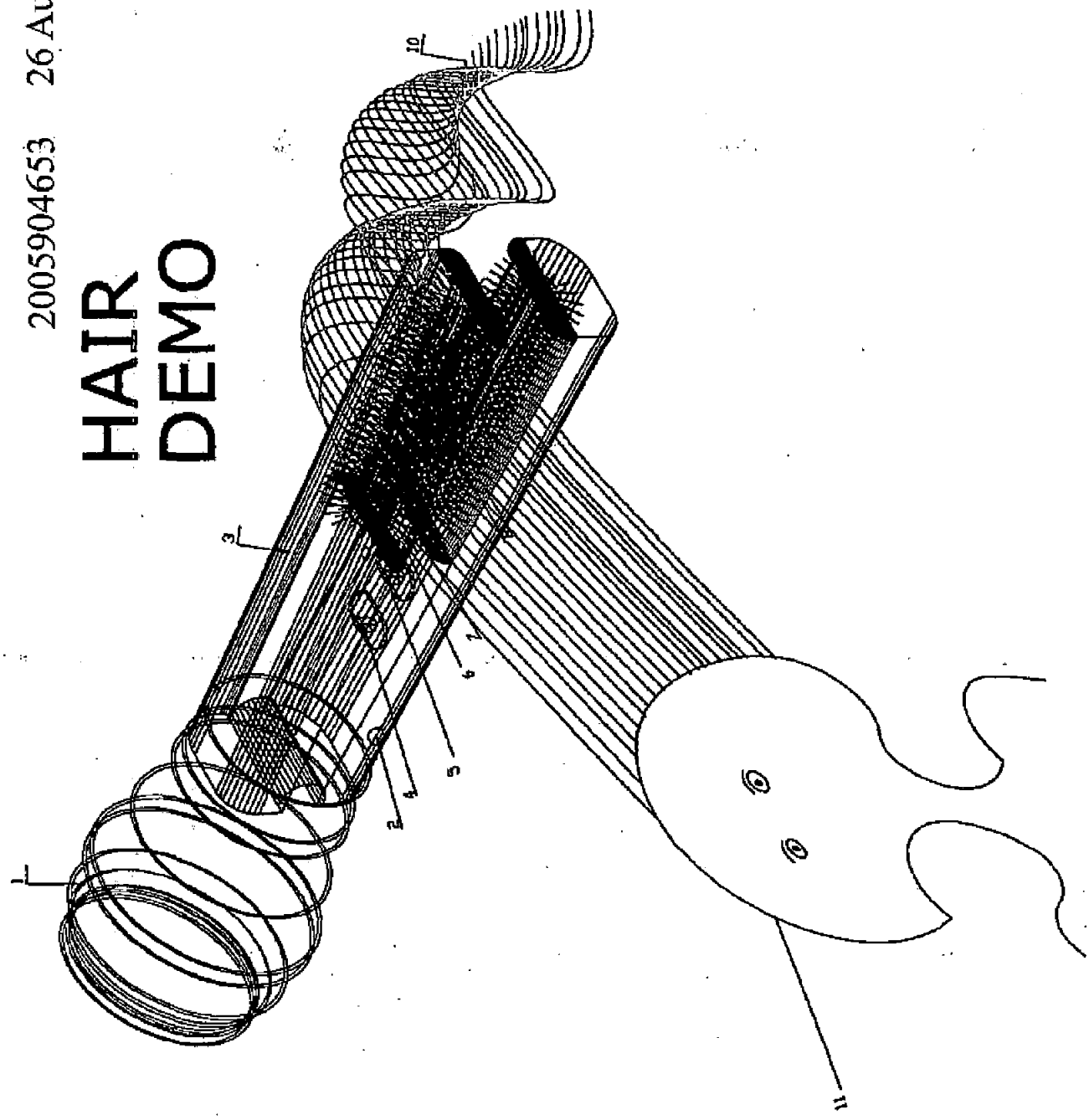
ROUND BRUSH+AIR

ALL DIMENSIONS ARE SUBJECTED TO UNRESTRICTED VARIATIONS



2005904653 26 Aug 2005

HAIR DEMO



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2005904653	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/AU2006/001244	International filing date (day/month/year) 25 August 2006	Priority date (day/month/year) 26 August 2005
International Patent Classification (IPC) or national classification and IPC Int. Cl. <i>A45D 20/50</i> (2006.01) <i>A45D 1/14</i> (2006.01) <i>A45D 1/04</i> (2006.01) <i>A45D 2/40</i> (2006.01)		
Applicant MOURAD, Joseph		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 4 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. ☐ (sent to the applicant and to the International Bureau) a total of sheets, as follows: ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).																									
4. This report contains indications relating to the following items: <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">☒</td> <td style="width: 15%;">Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td>☐</td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td>☐</td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td>☒</td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td>☒</td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td>☐</td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td>☐</td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td>☐</td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>		☒	Box No. I	Basis of the report	☐	Box No. II	Priority	☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	☒	Box No. IV	Lack of unity of invention	☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	☐	Box No. VI	Certain documents cited	☐	Box No. VII	Certain defects in the international application	☐	Box No. VIII	Certain observations on the international application
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☐	Box No. II	Priority																							
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability																							
☒	Box No. IV	Lack of unity of invention																							
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☐	Box No. VI	Certain documents cited																							
☐	Box No. VII	Certain defects in the international application																							
☐	Box No. VIII	Certain observations on the international application																							

Date of submission of the demand 25 June 2007	Date of completion of this report 23 August 2007
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer VENKAT IYER AUSTRALIAN PATENT OFFICE (ISO 9001 Quality Certified Service) Telephone No. (02) 6283 2144

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2006/001244

Box No. 1 Basis of the report

1. With regard to the language, this report is based on:

- ☒ The international application in the language in which it was filed
- ☐ A translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3(a) and 23.1 (b))
- ☐ publication of the international application (under Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- ☐ the international application as originally filed/furnished
- ☐ the description:
- | | |
|--------|--|
| pages | as originally filed/furnished |
| pages* | received by this Authority on _____ with the letter of |
| pages* | received by this Authority on _____ with the letter of |
- ☐ the claims:
- | | |
|--------|---|
| pages | as originally filed/furnished |
| pages* | as amended (together with any statement) under Article 19 |
| pages* | received by this Authority on _____ with the letter of |
| pages* | received by this Authority on _____ with the letter of |
- ☐ the drawings:
- | | |
|--------|--|
| pages | as originally filed/furnished |
| pages* | received by this Authority on _____ with the letter of |
| pages* | received by this Authority on _____ with the letter of |

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (specify):
- ☐ any table(s) related to the sequence listing (specify):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (specify):
- ☐ any table(s) related to the sequence listing (specify):

5. ☐ This report has been established taking into account the rectification of an obvious mistake authorized by or notified to the Authority under Rule 91 (Rule 70.2(e)).

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has, within the applicable time limit:
- ☐ restricted the claims
 - ☐ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ neither restricted the claims nor paid additional fees
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
- ☐ complied with.
 - ☒ not complied with for the following reasons:
- Claim 1: It is considered that a hair styling device comprising an elongate arm having a hair receiving surface extending along at least part of the arm; an air passageway coupled to the arm and being in fluid communication with an elongate air outlet associated with the hair receiving surface, the elongate air outlet being disposed substantially parallel to the arm and configured to blow air substantially along the length of the hair; and brush means attached to the arm at or adjacent the hair receiving surface comprises a first distinguishing feature.
- Claim 2: It is considered that a hair styling device comprising a pair of tongs including two elongate arms being closable with respect to one another, each of the arms having a hair receiving surface; a heating element connected to at least one of the hair receiving surfaces; an air passageway coupled to at least one of the arms and being in fluid communication with an air outlet associated with the hair receiving surface of that arm; air heating means operatively coupled to the air passageway for heating air blown through the passageway and exiting the elongate air outlet; and brush means attached to at least one of the arms at or adjacent the hair receiving surface comprises a second distinguishing feature.
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
 - ☐ the parts relating to claims Nos.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2006/001244

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1 - 14	YES
	Claims	NO
Inventive step (IS)	Claims 1 - 14	YES
	Claims	NO
Industrial applicability (IA)	Claims 1 - 14	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

D1: US 4023578
D2: JP 2003174920
D3: JP 2004216179
D4: US 3150393
D5: US 4280517
D6: DE 8717038 U

None of the above documents explicitly discloses or suggests the invention defined in independent claims 1 or 2.

Claim 1 requires that the air outlet be configured to blow air substantially along the length of the hair. Document D1 which is the closest art does not explicitly disclose this feature.

Claim 2 is an independent claim to a hair styling tong with a pair of arms having hair receiving surfaces, air passageway for hot air, brush means and heating means connected to at least one of the hair receiving means. The combination of these features is not evident from any of the above documents.

Thus claims 1, 2 and dependent claims 3 to 14 are considered to be novel and to involve an inventive step in light of the above prior art.

SEÑORES
SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
CIUDAD

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 08-029827- -00002-0000

Fecha: 2008-07-23 15:44:19 Dep: 2020 NUECREACION
Tra: 11 PATENTE IYII Eve: 379 FASE NACIONAL II
Act: 467 SOLICIPRORROGA Folios: 2

Ref.: Asunto: No. de Radicación: 08-29827
Solicitud Internacional: PCT / AU2006 / 001244
Trámite: Patente de Invención PCT
Título: DISPOSITIVO PARA EL DISEÑO DE PEINADOS
Solicitante: MOURAD JOSEPH

SOLICITUD DE PRORROGA

MAURICIO JARAMILLO C., abogado en ejercicio, portador de la cédula de ciudadanía número 80'421,942 de Usaquén, y de la Tarjeta Profesional No. 74,555 del Consejo Superior de la Judicatura, actuando en mi carácter de apoderado del solicitante y de conformidad con lo establecido en el artículo 39 de la Decisión 486 de la Comunidad Andina, respetuosamente me permito solicitar que el término concedido por su Despacho, para dar respuesta a los requerimientos efectuados mediante el Auto 6742 del 23 de Mayo de 2008, sea prorrogado por un periodo igual al conferido inicialmente.

A tal fin, respetuosamente me permito anexar el correspondiente recibo de pago, por concepto de la anterior solicitud de prorroga.

NOTIFICACIONES

Informo que mi representado y el suscrito recibiremos las notificaciones en la secretaría de su despacho o en mi oficina de abogados, situada en la calle 67 # 7-35 de Bogotá D.C., teléfonos 3192900.

Atentamente,

MAURICIO JARAMILLO C.
C.C. No. 80'421,942 de Usaquén
T.P. No. 74,555 del C.S.J.

Adjunto: lo anunciado.
dcm

IP 795 JOSEP4

2

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 08-029827- -00002-0000

Fecha: 2008-07-23 15:44:19 Dep. 2020 NUECREACION
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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176089-2

RECIBO OFICIAL DE CAJA : 08 - 58,561
FECHA : JULIO 22 DE 2008

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PAGO	Vr. PAGO
GOMEZ PINZON ASEMARCS	CONSIGNACION	BANCO DE BOGOTA	062754387	5433820	22/07/2008	6,040,000.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-08	PRORROGA DE TERMINOS	75,000.00
		31 PRORROGA DE TERMINOS	75,000.00
		TOTAL :	\$ 75,000.00

SON: SETENTA Y CINCO MIL PESOS

RESPONSABLE : _____

109