

AUXILIARY LENSES FOR EYEGLASSES

The invention relates to an auxiliary frame for eyeglasses.

US Patent No. 5,568,207 to Chao comprise a primary
05 frame having two magnet members provided on the upper
side portions, and an auxiliary frame including a pair
of arms each having a magnet member for engaging with
that of the primary frame. Two hands are required for
attaching the auxiliary frame to the primary frame.

10 The invention is to provide an auxiliary frame for
engaging onto the primary frame by only one hand.

FIG. 1 is a top plan view showing a primary frame
and an auxiliary frame separating from each other;

FIG. 2 is a top plan view of the primary frame and
15 the auxiliary frame combination;

FIG. 3 is a front elevational view of the primary
frame and the auxiliary frame combination;

FIG. 4 is a cross sectional view taken along
middle bridge portions of FIG. 2;

20 FIGS. 5, 6, 7, 8 are cross sectional views similar
to FIG. 4, showing four applications of the middle
bridge portions of the eyeglass device; and

FIG. 9 is a top plan view showing another
application of the eyeglass device.

25 Referring to FIGS. 1 to 3, an eyeglass device
comprises a primary frame 10 for supporting primary
lenses and including two sides each having an extension

11 extended rearwardly for pivotally coupling a leg 12 and including a middle bridge 13 for supporting a magnetic or magnetizable connector 14. An auxiliary frame 20 may support the auxiliary lenses and includes
05 a middle bridge 21 having a projection 22 extended rearward for extending over and for engaging with the bridge 13 of the primary frame 10 (FIGS. 2-4). The auxiliary frame 20 includes a magnetic or magnetizable connector 24 secured in the projection 22 for engaging
10 with the connector 14 of the primary frame 10 such that the auxiliary frame 20 can be stably supported on the primary frame 10 (FIGS. 2-4).

The projection 22 is supported on the bridge 13 of the primary frame 10 such that the auxiliary frame 20
15 will not move downward relative to the primary frame 10 and will not disengage from the primary frame 10 when its user conducts jogging or jumping exercises.

The user is only required to engage the connector 24 of the auxiliary frame 20 with the connector 14 of
20 the primary frame 10, such that the frames 10, 20 can be easily secured with each other. The user can thus easily use only one hand to stably attach the auxiliary frame to the primary frame. Alternatively, only one of the connectors 14, 24 is required to be a magnet. For
25 example, if only connector 24 is provided as a magnet in the bridge 21 of the auxiliary frame, the connector 14 is not required to be a magnet, but could be

composed typically of magnetic iron. It is only required to have the bridge 13 made by magnetically attractive material such that the bridge 21 of the auxiliary frame 20 may also be easily attached to the primary frame 10. Only one or one pair of magnetizable members are required to be a magnet for attaching the spectacle frames together.

The connector 24 may be slightly extended downward toward the connector 14 (FIG. 4). The bridges 13, 21 may be tilted (FIG. 5) or may include a flange 220 tilted downward (FIG. 6) for engaging with the bridge 13. The magnetic member 24 may be extended downward from the bridge 21 for engaging with a hole 131 of the bridge 13 (FIG. 7). The bridge 21 may include a C-shape having two magnetic members 24 engaged above and below the magnetic member 14 (FIG. 8). As shown in FIG. 9, the bridge 21 may include one or more hand grips 28 for facilitating the holding of the auxiliary frame, and may include a stop 29 extended downward from the bridge 21 for engaging with the bridge 13 and for preventing the bridge 21 from being disengaged from the bridge 13.

Accordingly, the eyeglass device includes an auxiliary frame that may be easily secured to the primary frame with only one hand.



CLAIMS:

1. An eyeglass device comprising:
a primary frame (10) including a bridge (13),
a first connector (14) secured in the bridge
05 (13) of the primary frame (10),
an auxiliary frame (20) including a bridge (21)
for engaging with the bridge (13) of the primary frame
(10), and
a second connector (24) secured to the projection
10 (22) of the auxiliary frame (20) for engaging with the
first magnetic member of the primary frame (10) and for
allowing the auxiliary frame (20) to be attached to the
primary frame (10) with only one hand by a user.
2. The eyeglass device as claimed in claim 1
15 further comprising magnetic means (14, 24) operatively
associated with the first and second connectors (14,
24) for connecting the first and the second connectors
(14, 24) together magnetically.
3. The eyeglass device as claimed in claim 2,
20 wherein the first connector (14) being a magnet, the
second connector (24) being a magnetizable substance.
4. The eyeglass device as claimed in claim 2,
wherein the second connector (24) being a magnet, the
first connector (14) being a magnetizable substance.
- 25 5. The eyeglass device as claimed in claim 1,
wherein the bridge (21) includes a projection (22) for
engaging with the bridge (13) of the primary frame.



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ABSTRACT OF THE DISCLOSURE

An eyeglass device includes a primary frame (10) and an auxiliary frame (20) for supporting lenses. The primary frame (10) includes a magnetic connector (14) secured in the bridge (13). The auxiliary frame (20) includes a bridge (21) having a projection (22) for engaging over the bridge (13) of the primary frame (10) and having a magnetic connector (24) for engaging with the connector (14) of the primary frame (10) such that the spectacle frames (10, 20) can be easily secured together with only one hand.

FIGS. 1, 2

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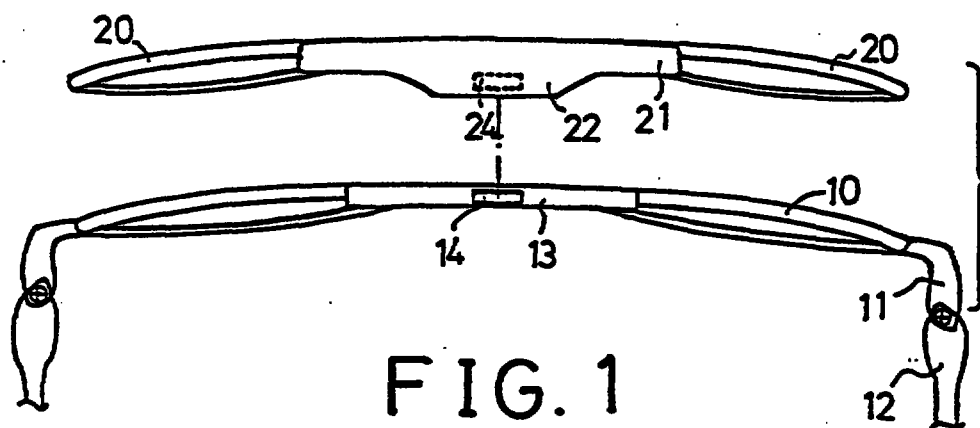


FIG. 1

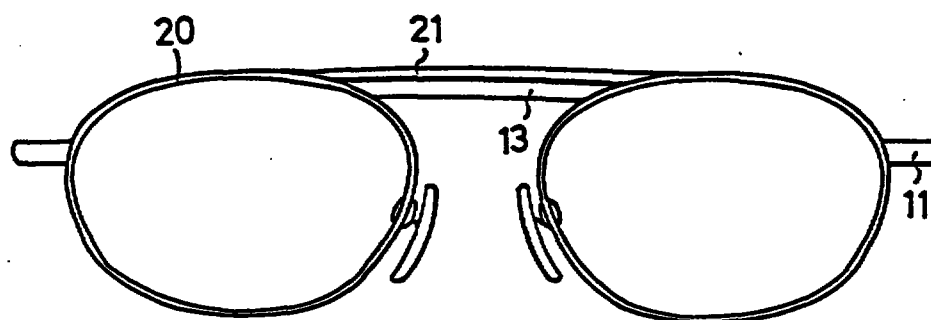


FIG. 3

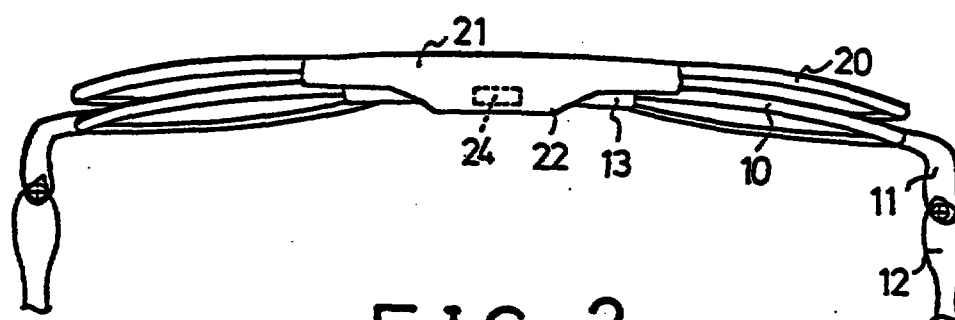


FIG. 2

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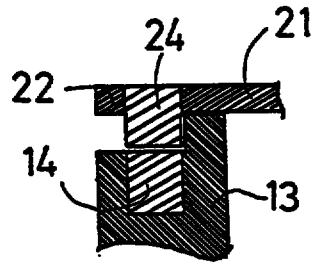


FIG. 4

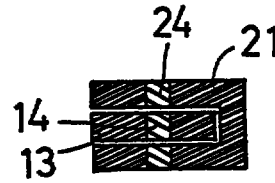


FIG. 8

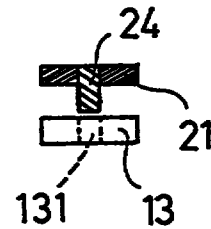
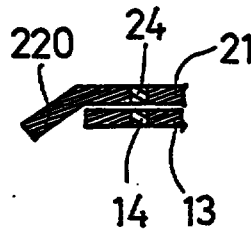
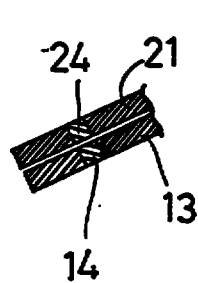


FIG. 5 FIG. 6 FIG. 7

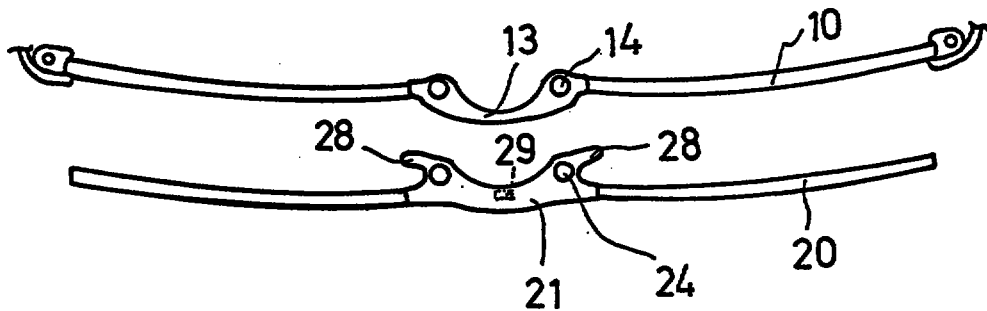


FIG. 9

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AUXILIARY LENSES FOR EYEGLASSES

ABSTRACT OF THE DISCLOSURE

An eyeglass device includes a primary frame (10) and an auxiliary frame (20) for supporting lenses. The primary frame (10) includes a magnetic connector (14) secured in the bridge (13). The auxiliary frame (20) includes a bridge (21) having a projection (22) for engaging over the bridge (13) of the primary frame (10) and having a magnetic connector (24) for engaging with the connector (14) of the primary frame (10) such that the spectacle frames (10, 20) can be easily secured together with only one hand.

FIGS. 1, 2

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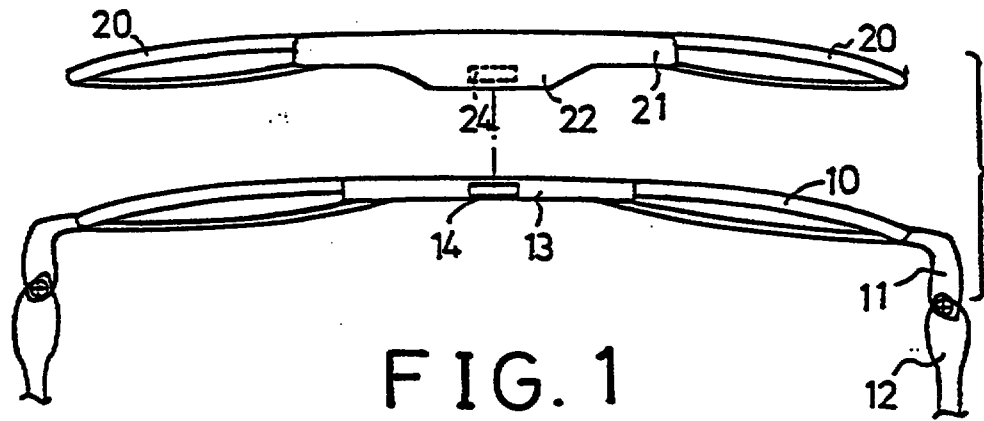


FIG. 1

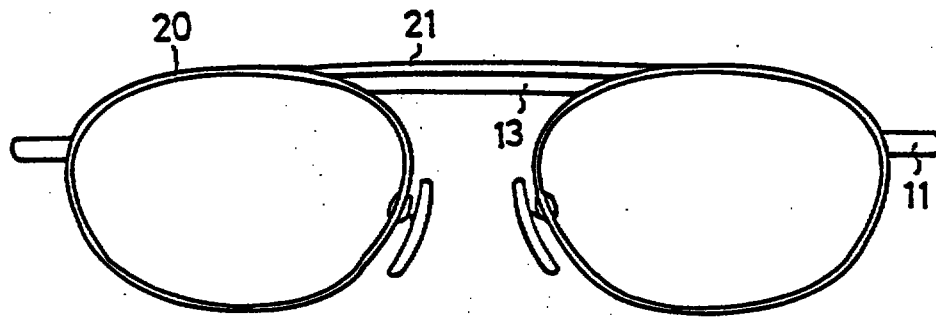


FIG. 3

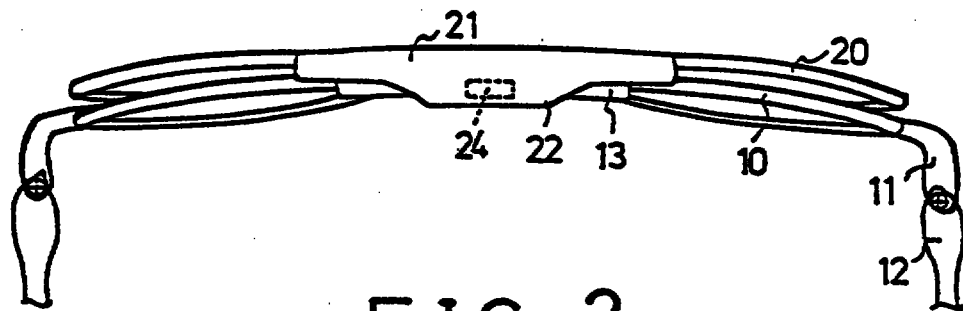
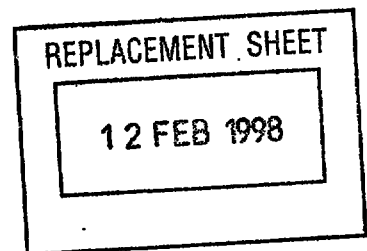
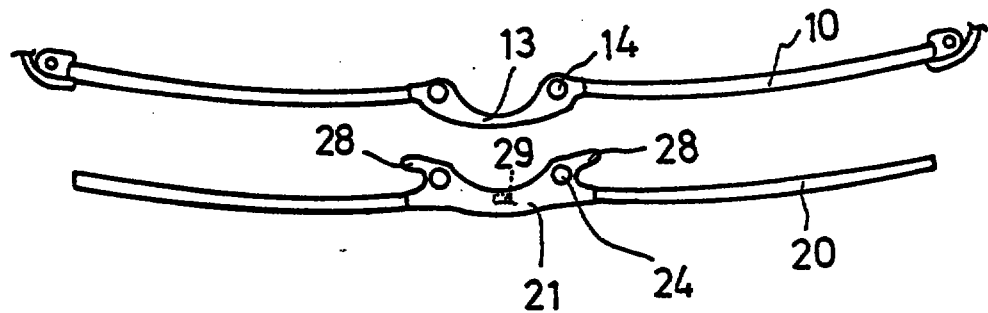
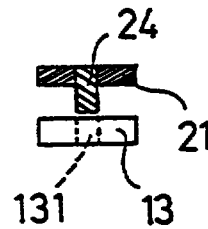
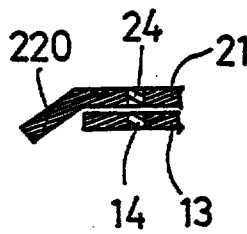
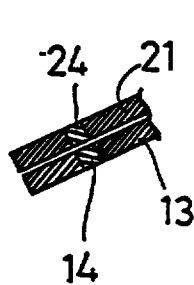
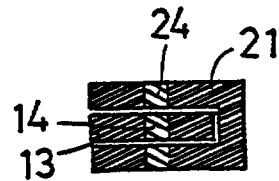
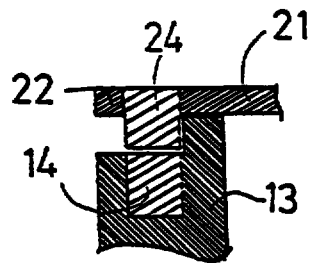


FIG. 2





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CLAIMS:

1. An eyeglass device comprising:

- a primary spectacle frame for supporting primary lenses therein, said primary spectacle frame including a middle bridge portion,
- a first magnetic member secured in said middle bridge portion of said primary spectacle frame,
- an auxiliary spectacle frame for supporting auxiliary lenses therein, said auxiliary spectacle frame including a middle bridge portion having a projection extended therefrom for extending over and for engaging with said middle bridge portion of said primary spectacle frame, and
- a second magnetic member secured to said projection of said auxiliary spectacle frame for engaging with said first magnetic member of said primary spectacle frame and for allowing said auxiliary spectacle frame to be attached to said primary spectacle frame with only one hand by a user.

2. An eyeglass device comprising:

- a primary spectacle frame for supporting primary lenses therein, said primary spectacle frame including a middle bridge portion,
- a first connector member secured in said middle bridge portion of said primary spectacle frame,
- an auxiliary spectacle frame for supporting auxiliary lenses therein, said auxiliary spectacle frame including a middle bridge portion having a projection extended therefrom for extending over and for engaging with said middle bridge portion of said primary spectacle frame,
- a second connector member secured to said projection of said auxiliary spectacle frame for engaging with said first connector member of said primary spectacle frame, and

magnetic means operatively associated with the first and second connector members whereby they are connectable to each other magnetically for allowing said auxiliary spectacle frame to be attached to said primary spectacle frame with only one hand by a user.

3. The eyeglass device as claimed in claim 2, with the first connector member being a magnet, the second connector member being a magnetizable substance.

4. The eyeglass device as claimed in claim 2, with the second connector member being a magnet, the first connector member being a magnetizable substance.