

Motherson Innovations Co., Ltd. v. Magna Mirrors of America, Inc.

IPR 2020-00777, U.S. Patent No. 10,261,648

July 13, 2021

Dennis J. Abdelnour, Honigman LLP
on behalf of Patent Owner Magna Mirrors of America, Inc.

Agenda

1. **Bracket**
2. Yaw, Pitch and Roll
3. Exterior Mirror Reflective Element
Fixedly Attached At Said Mirror Head
4. Rounded
5. Cooperatively Operable Actuators
6. Tsuyama Obviousness

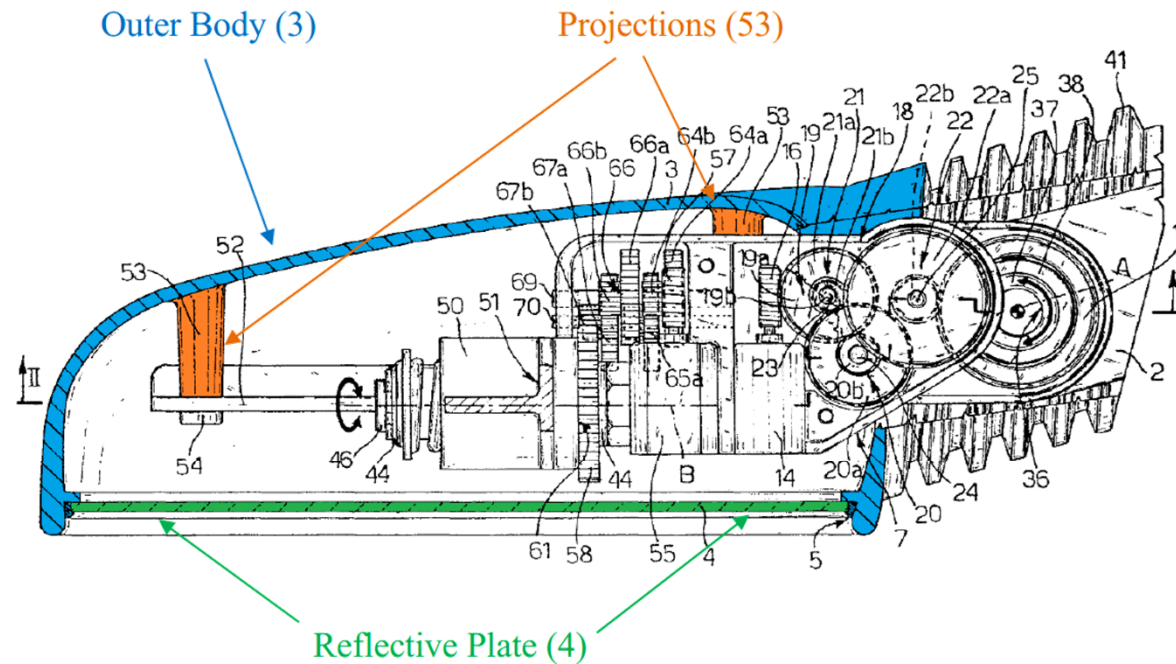
'648 Patent, Claims 3, 4 and 6

3. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises **a bracket to which said exterior mirror reflective element is fixedly attached.**

4. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises **a bracket to which said exterior mirror reflective element is fixedly attached** by use of an adhesive.

6. The exterior rearview mirror assembly of claim 5, wherein said mirror head comprises **a bracket to which said exterior mirror reflective element is fixedly attached**, and wherein **said one end of said support structure attaches at said bracket.**

Motherson Identifies Lupo's Projections 53 As The Claimed "Bracket"

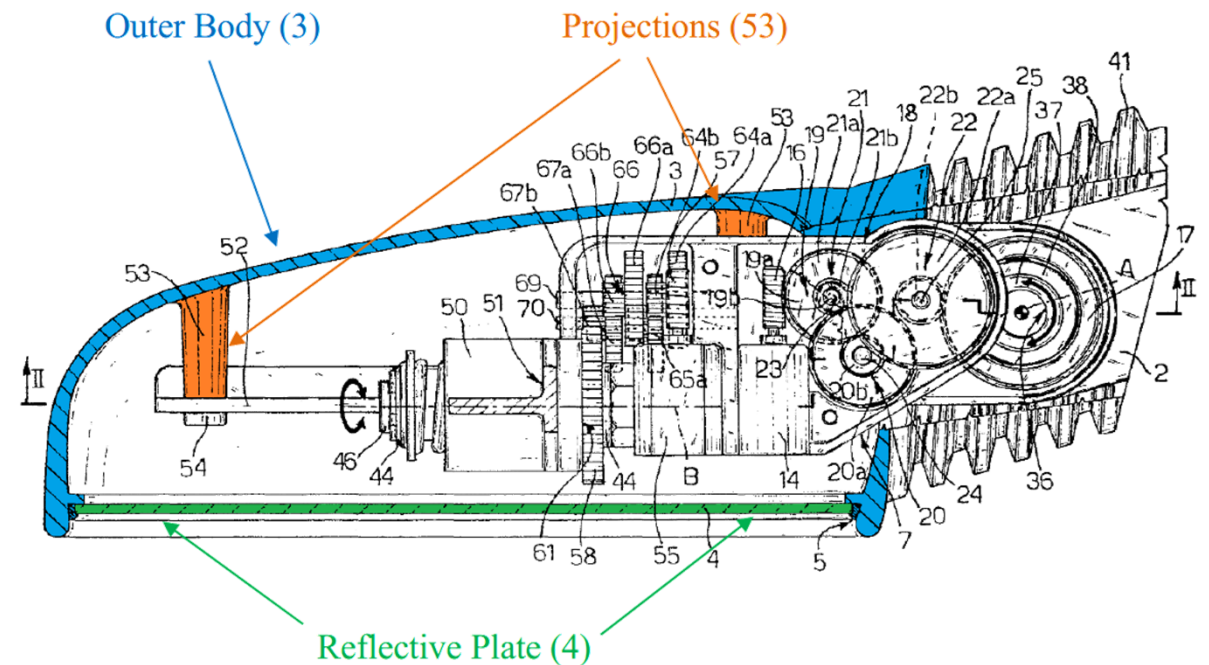


Thus, Lupo teaches wherein said mirror head (outer body 3, projections 53) comprises a bracket (projections 53) to which said exterior mirror reflective element (reflective plate 4) is fixedly attached. (Ex. 1002, ¶¶93-95.)

Petitioner's "Bracket" Does Not Meet Express Claim Requirements

3. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises **a bracket to which said exterior mirror reflective element is fixedly attached**.

4. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises **a bracket to which said exterior mirror reflective element is fixedly attached** by use of an adhesive.

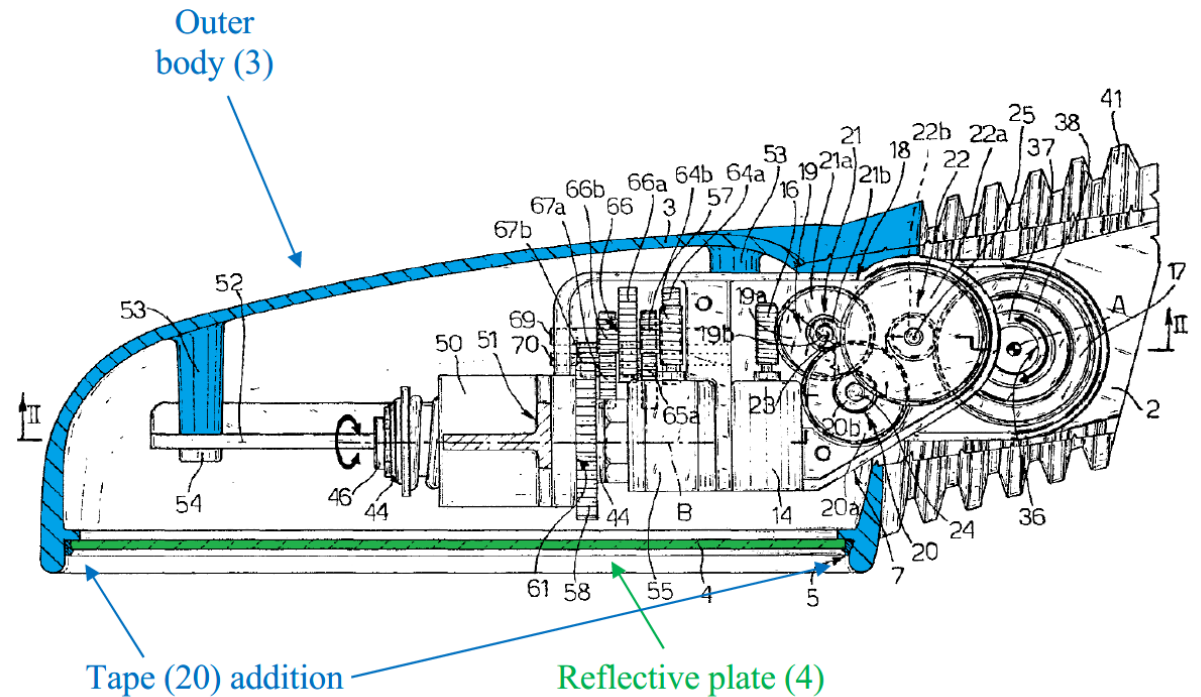


Petitioner Reply (Paper No. 13) at 19.

Petitioner's "Bracket" Does Not Meet Express Claim Requirements

3. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises **a bracket to which said exterior mirror reflective element is fixedly attached**.

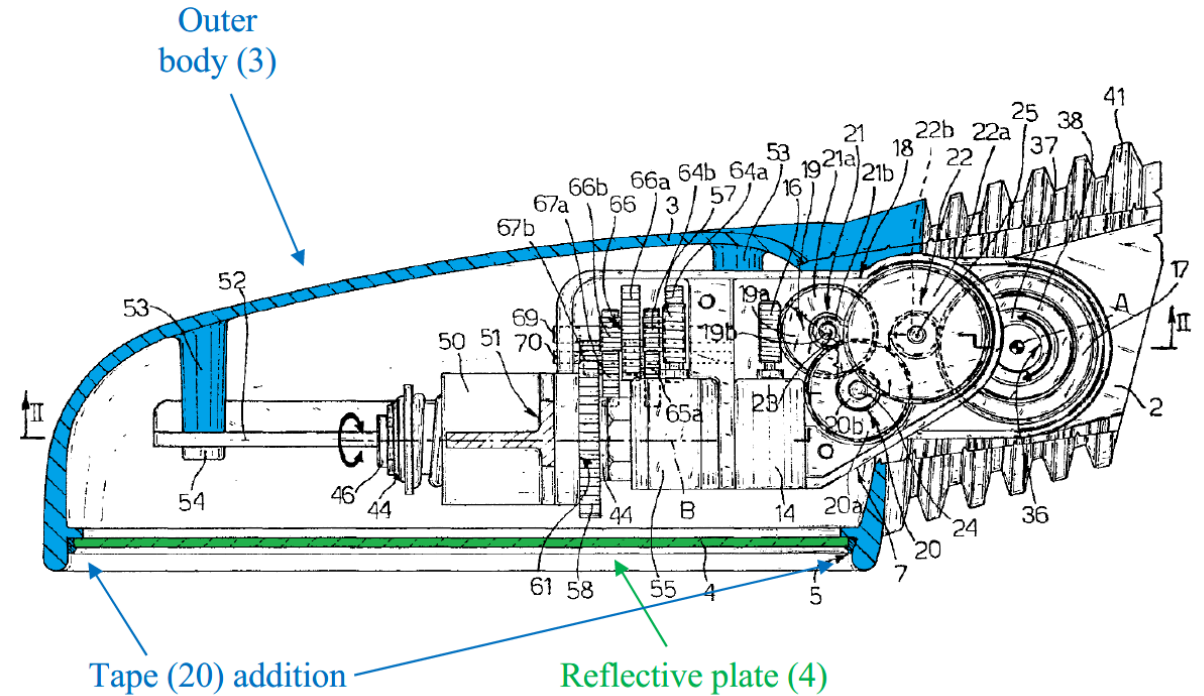
4. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises **a bracket to which said exterior mirror reflective element is fixedly attached by use of an adhesive**.



Petitioner Reply (Paper No. 13) at 27;
see also Petition at 47.

Petitioner Identified The “Bracket” In Lupo Strategically

6. The exterior rearview mirror assembly of claim 5, wherein said mirror head comprises **a bracket to which said exterior mirror reflective element is fixedly attached**, and wherein **said one end of said support structure attaches at said bracket**.



Petitioner Reply (Paper No. 13) at 27.

Motherson Tries To Overcome The Deficiency By Misconstruing “Fixedly Attached” In Isolation

Thus, Lupo teaches wherein said mirror head (hollow outer body 3, projections 53) comprises a bracket (projections 53) to which said exterior mirror reflective element (reflective plate 4) is fixedly attached.¹ (Ex. 1002, ¶¶ 93-95.)

¹ As explained above, “fixedly attached” should be construed to encompass direct or indirect attachment. This construction is supported by Fig. 56 of the ’648 patent, which discloses a reflective element (612) fixedly, and indirectly, attached to a bracket (616) via the mirror housing (614).

The '648 Claims And Specification Requires Direct Attachment Of The Mirror Reflective Element To The Bracket

3. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises a **bracket** to which said **exterior mirror reflective element** is fixedly attached.

4. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises a **bracket** to which said **exterior mirror reflective element** is fixedly attached by use of an adhesive.

6. The exterior rearview mirror assembly of claim 5, wherein said mirror head comprises a **bracket** to which said **exterior mirror reflective element** is fixedly attached, and wherein said **one end of said support structure** attaches at said **bracket**.

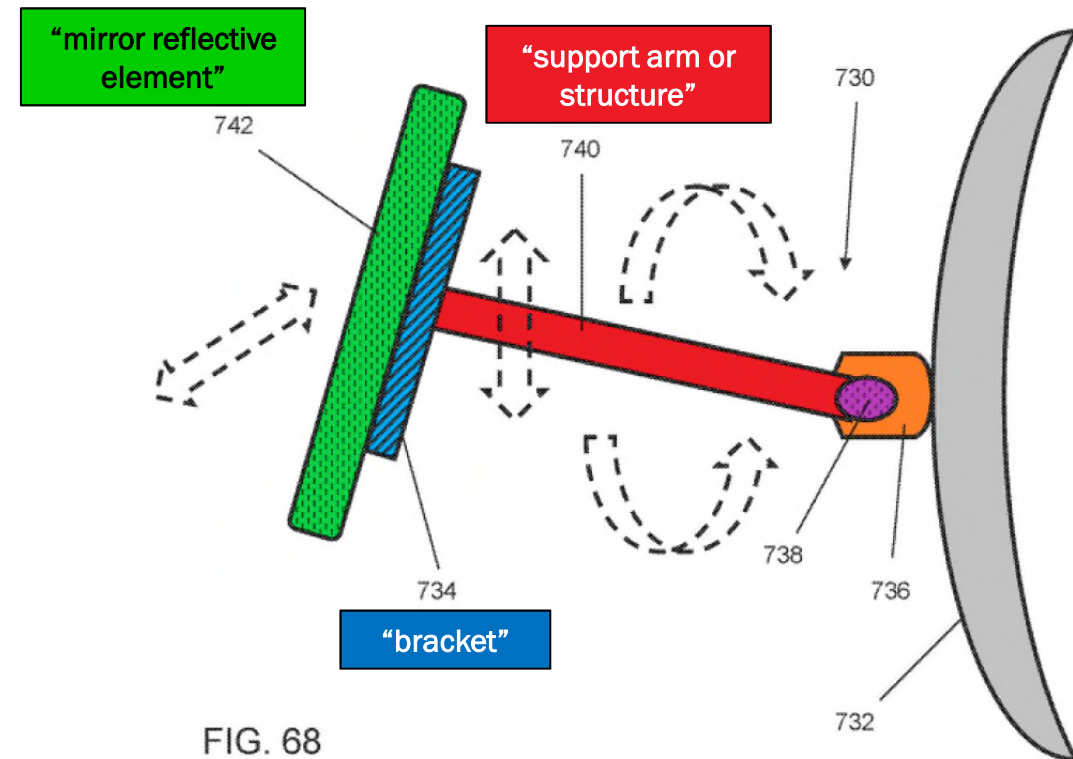


FIG. 68

Ex. 1001, Fig. 68.

The '648 Patent Requires Direct Attachment Of The Mirror Reflective Element To The Bracket

“The mirror reflective element can be **adhered or otherwise fixedly attached at a surface or mounting portion of the mirror head**, and the mirror head can be any shape (such as generally flat or having a narrow or thin profile or the like) depending on the particular application of the mirror assembly and the vehicle manufacturer's design preferences.”

Ex. 1001 at 71:53–58.

The '648 Patent Requires Direct Attachment Of The Mirror Reflective Element To The Bracket

3. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises a **bracket** to which said **exterior mirror reflective element** is fixedly attached.

4. The exterior rearview mirror assembly of claim 1, wherein said mirror head comprises a **bracket** to which said **exterior mirror reflective element** is fixedly attached by use of an adhesive.

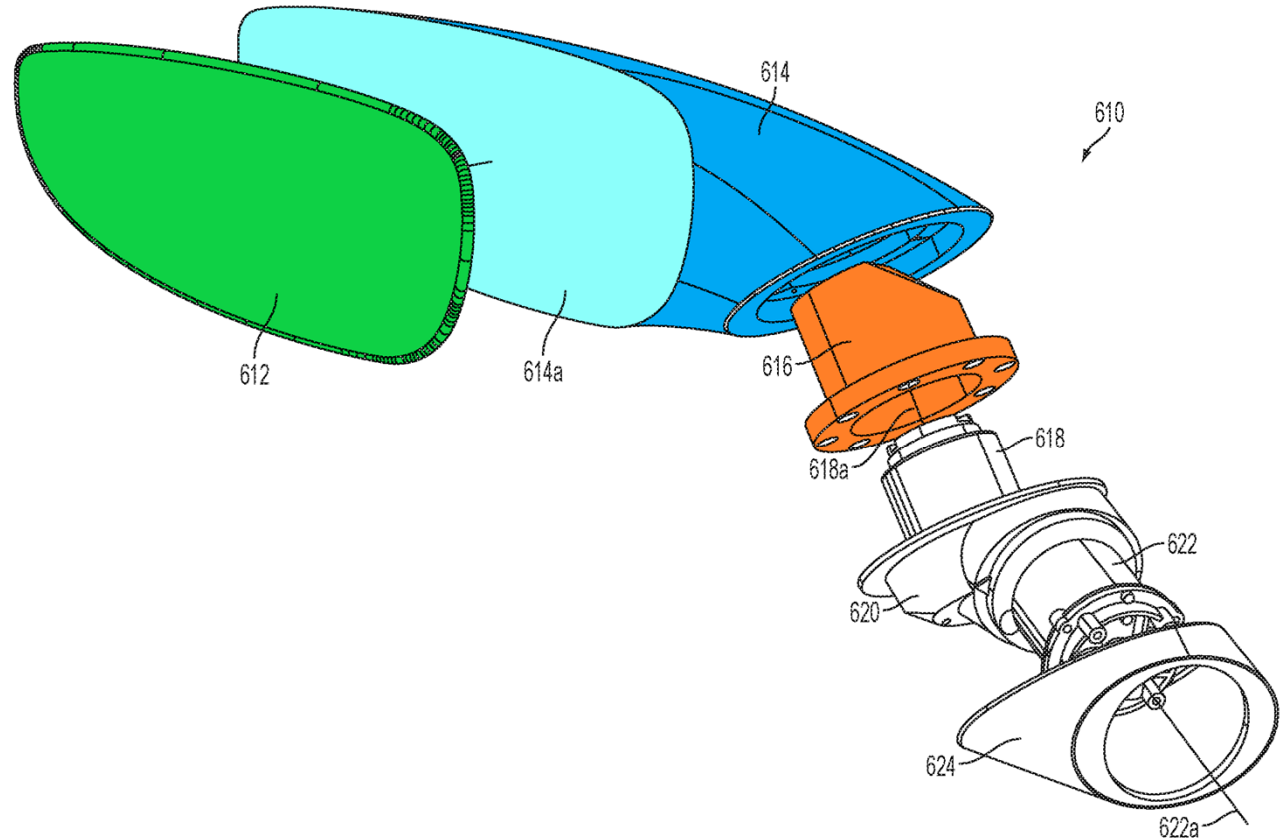


FIG. 56

Ex. 1001, Fig. 56.

Mother's Construction Relies Solely On Extrinsic Evidence

1. “Fixedly Attached” – Claims 1, 3-4, 6-7, 12, 15, 17-18, 21-22, 24, 26-27, 39-30, 32

“Fixedly attached” appears only once in the specification of the '648 patent and is not further defined. (Ex. 1001, 71:53-55.) One court found “fixedly attached” means “securely attached and not readily moveable or detachable.” *Claim Construction Order, Steve Neville et al v. Foundation Constructors, Inc., 5-17-cv-02507 (C.D. Cal. Oct. 24, 2018)*. Another court found that “attached” includes “components attached to a fixed structure via another component,” such as attaching tags to a piece of clothing by an intermediary. *Claim Construction Order, 9-14, No. 07-CV-390, M-B-W Inc. v. Multiquip, Inc., (E.D. Wis. 2009)* Judge Learned Hand even rejected the notion that “attached” means only “directly affixed,” stating “we speak of two objects as ‘attached’ to each other though they are connected by a train of links or even by a chain.” *Royal Typewriter Co. v. Remington Rand, Inc., 168 F.2d 691, 693 (2d Cir. 1948)*. Thus, Petitioner submits that “fixedly attached” means “securely fastened, either directly or indirectly, and not readily detachable.” (Ex. 1002, ¶¶ 48-49.)

Petition (Paper No. 1) at 5-6.

49. To the extent claim construction is necessary, it is my opinion that “fixedly attached” should be construed as “securely fastened, either directly or indirectly, and not readily detachable.” The dictionary.com definition of “attach” is “to fasten or affix; join; connect,” and the example is “to attach a photograph to an application with a staple.” Ex. 1013 at 1. Thus, I understand the word “attached” to mean something is fastened to another either directly or by use of an intermediary. For example a nut may be directly attached to a bolt. Alternatively, a wheel of a vehicle may be attached to the wheel hub which is in turn attached to the axle. Thus, the wheel is attached to the axle by means of intermediary wheel hub. The dictionary.com definition of “fixed” is “fastened, attached, or placed so as to be firm and not readily movable; firmly implanted; stationary; rigid.” Ex. 1014 at 1. Thus, I understand the word “fixedly” to mean the components are not readily detachable and move with one another. For example, the wheel of a vehicle is fixedly attached to the axel by the wheel hub such that the axel and the wheel are not readily detachable and move together. Thus, “fixedly attached” should be defined as “securely fastened, either directly or indirectly, and not readily detachable.”

Ex. 1002 ¶ 49.

The Testimony Of Magna's Expert Is The Only One Based On The Intrinsic Record

91. ...one of skill in the art would understand the phrase 'a bracket to which said exterior mirror reflective element is fixedly attached' to mean 'a bracket that is directly attached to said exterior mirror reflective element.' The understanding is the plain meaning of the term **when read in context of the entire claim and the specification.**

94. A **person of ordinary skill in the art reading the '648 Patent would understand** that the claims reciting a "bracket to which said exterior mirror reflective element is fixedly attached" read specifically on the embodiment, for example, of at least Figure 68. ...

Ex. 2001, ¶¶ 91, 93.

Mother's Own Exhibits Support Magna

3/30/2020

Bracket (architecture) - Wikipedia

WIKIPEDIA

Bracket (architecture)

A **bracket** is an architectural element: a structural or decorative member. It can be made of wood, stone, plaster, metal, or other media. It projects from a wall, usually to carry weight and sometimes to "...strengthen an angle".^{[1][2]} A console or console are types of brackets.^[3]



In mechanical engineering a bracket is any component for fixing one part to another, usually larger, part. What makes a bracket a bracket is that it is intermediate between the two and fixes the one to the other. Brackets vary widely in shape, but a prototypical bracket is the shelf bracket: a piece that attaches a shelf (the smaller component): its vertical arm is fixed to one wall and its horizontal arm protrudes outwards and holds a shelf. This shelf bracket is effectively the same as the shelf bracket element mounted on the wall, and a horizontal arm protrudes outwards to be attached on top of it or below it. To enable the outstretched arm to support a greater weight, a bracket will often have a third arm running diagonally between the horizontal and vertical arms, or the bracket may be a solid triangle. By extension almost any object that performs this function of attaching one part to another (usually larger) component is also called a bracket, even though it may not be obviously L-shaped. Common examples that are often not really L-shaped at all but attach a smaller component to a larger and are still called brackets are the components that attach a bicycle lamp to a bicycle, and the rings that attach pipes to walls.

In mechanical engineering a bracket is any intermediate component for fixing one part to another, usually larger, part. What makes a bracket a bracket is that it is intermediate between the two and fixes the one to the other. Brackets vary



Bracket for a shelf or hanging items

Ex. 1011 at 1.

The Board Agreed, But Motherson Offered No Further Supporting Evidence

views an indirect attachment. In particular, Petitioner seems to argue that any bracket attached to the mirror housing, and connecting the mirror housing to some other component, would result in the bracket being indirectly fixedly attached to the reflective element via the mirror housing and thus would satisfy the claimed “bracket.” *See* Pet. 20 n.1. On the current record, we agree with Patent Owner (Prelim. Resp. 17–18) such an interpretation appears to be a bridge too far and that the description of Figure 56 does not support that interpretation. Instead, the specification describes reflective element 612 being attached “at a rear attaching surface of the mirror head housing.” Ex. 1001, 58:56–67. Bracket 616 is described as being attached at the mirror head housing and at first actuator 618. *Id.* at 59:7–9. Petitioner does not point us to any disclosure in the specification that equates this limitation as encompassing indirect attachment of the bracket to the reflective element through the mirror head. *See* Pet. 5–6, 19–20 & n.1.

Institution Decision
(Paper No. 7) at 22.

Agenda

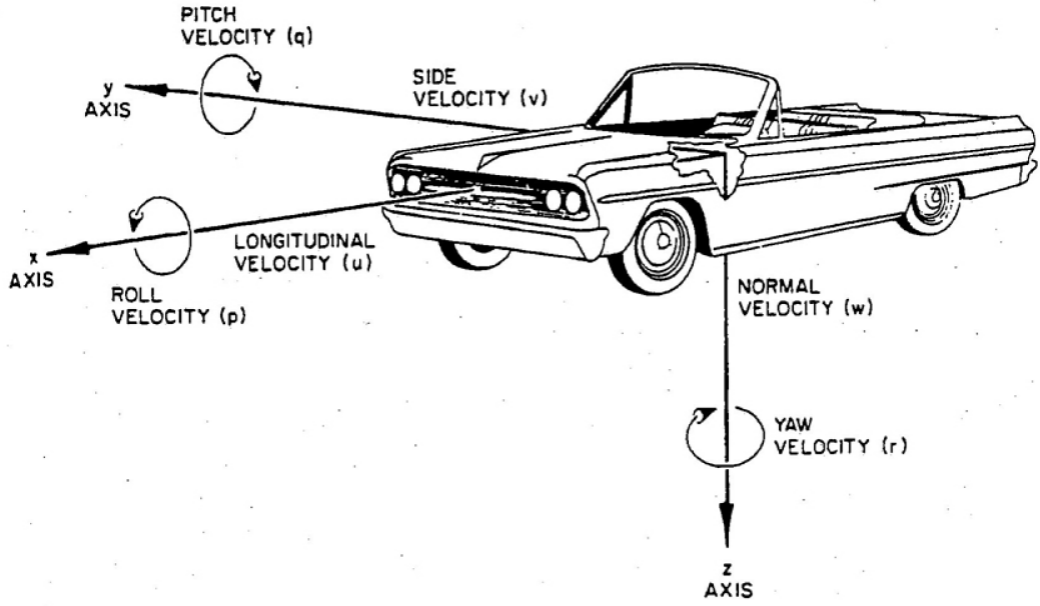
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'648 Patent, Claim 9

9. The exterior rearview mirror assembly of claim 1, wherein said multi-axis adjustment mechanism is operable for **yaw and roll adjustment** of said *exterior mirror reflective element relative to the exterior portion of the equipped vehicle at which said exterior rearview mirror assembly is attached.*

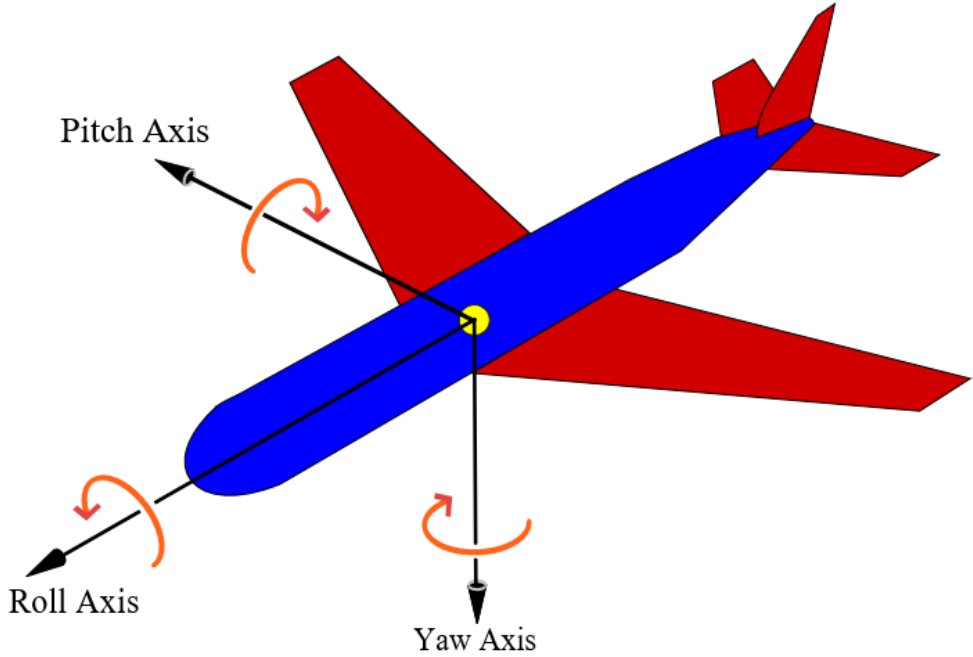
Standard Yaw, Pitch, and Roll Coordinate System

Patent Owner's Evidence:



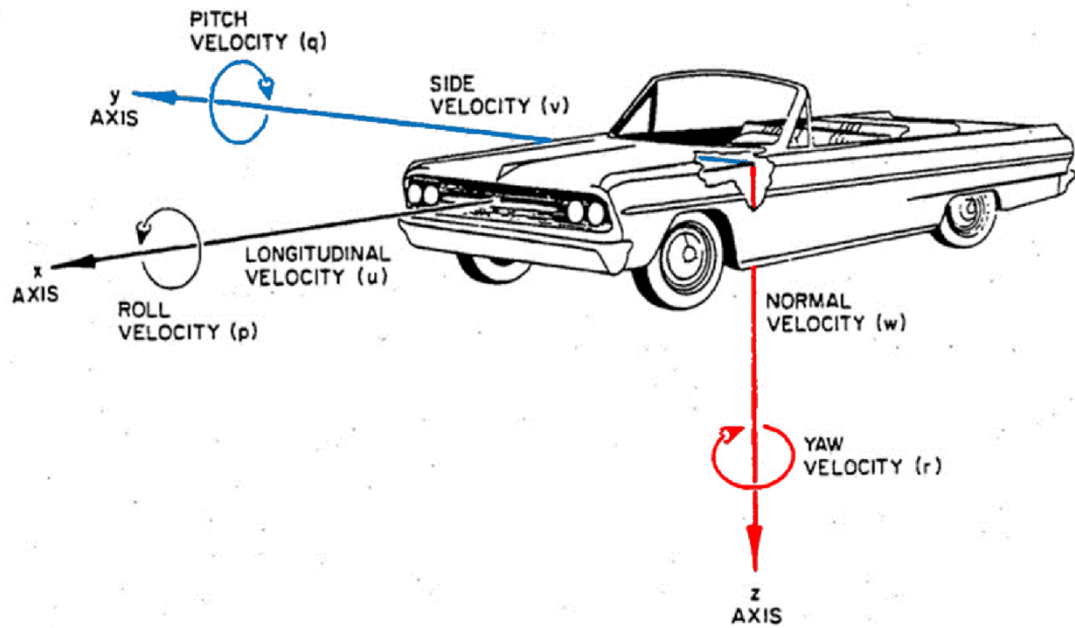
Ex. 2005 at 3.

Petitioner's Evidence:

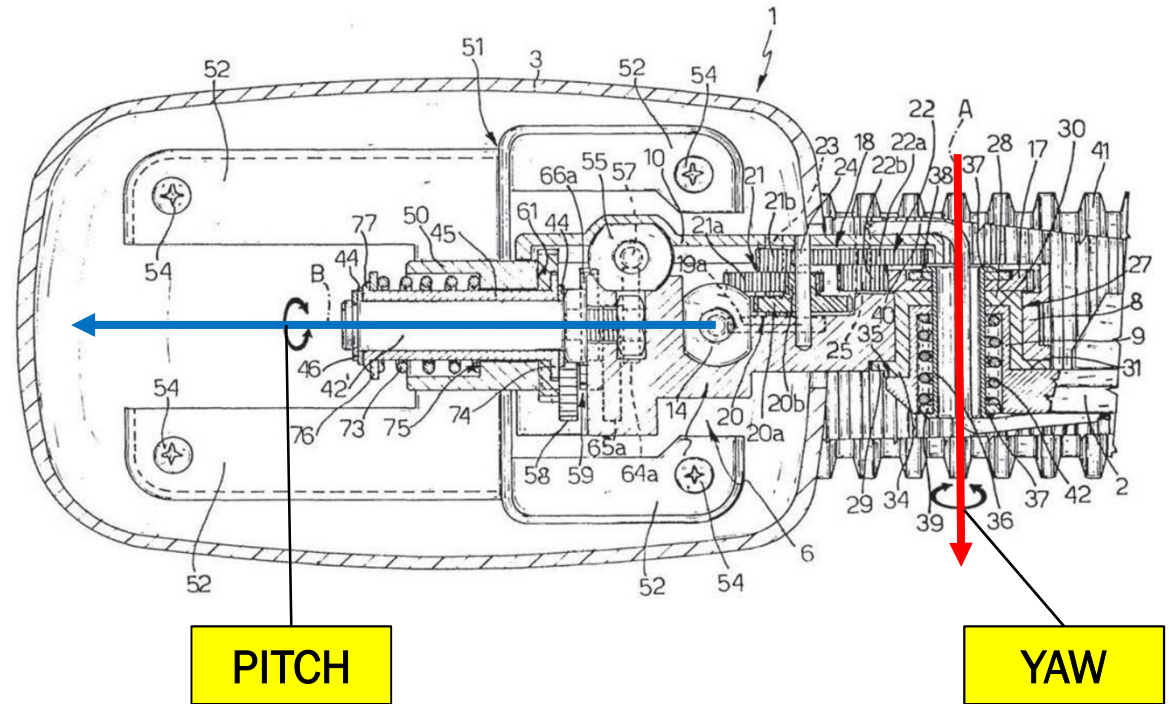


Ex. 1009.

Lupo Does Not Disclose “Roll Adjustment”



Ex. 2005 at 3, annotated.



Lupo Ex. 1003, Figure 2, annotated.

Mother's Original Construction Surreptitiously Sought To Reorient The Standard Coordinate System

Petitioner's Original Construction

roll: “a rotation about a main axis”

yaw: “a rotation about a vertical axis perpendicular to the main axis”

Paper No. 1 (Petition) at 6.

Motherson Concedes The '648 Patent Does Not Re-Define The Standard Coordinate System

2. “Yaw” and “Roll” – Claims 9, 15, And 26

The '648 specification does not specifically define yaw and roll. Typically, the roll axis is the main axis drawn longitudinally through an item. (*E.g.*, Ex. 1009, at 2.) Roll is defined as a rotation around this axis. (*Id.*) Yaw can be defined as a rotation around a vertical axis relative to the main axis. (*Id.*; *Certain Personal Transporters, Components Thereof, and Packaging and Manuals Therefor*, Final Initial Determination, Inv. No. 337-TA-1007, 103 (August 10, 2017)). Thus, “roll” should be defined as “a rotation about a main axis,” and “yaw” should be defined as “a rotation about a vertical axis perpendicular to the main axis.” (Ex. 1002, ¶¶ 50-51.)

Petition (Paper No. 1) at 6.

B. “Yaw” and “Roll” – Claims 9, 25, 31, and 36

50. Dependent claims 9, 25, 31, and 36 include the terms “yaw” and “roll.”

It is my opinion that these claim elements are given their plain and ordinary meaning as understood by a person having ordinary skill in the art.

Ex. 1002 at ¶ 50.

Board Agreed With Patent Owner And Invited Further Record Evidence

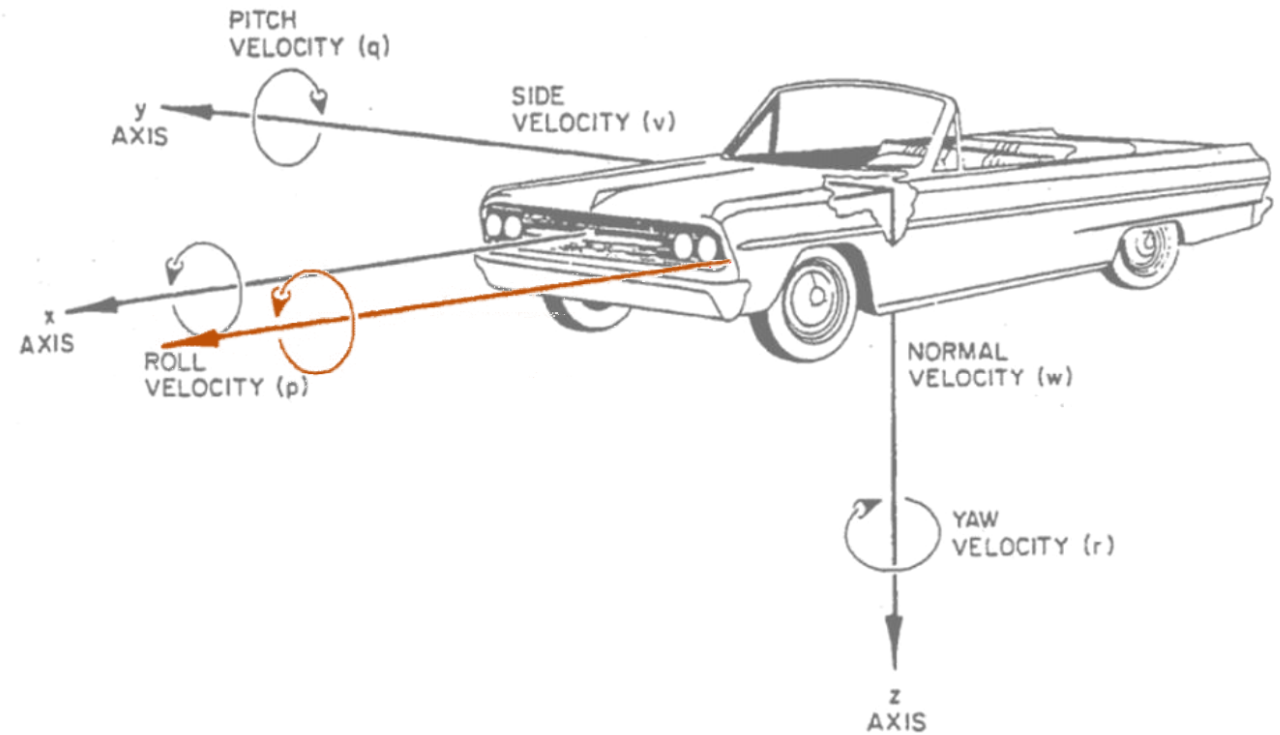
Because of this, on the current record, we agree with Patent Owner (Prelim. Resp. 29–30) that Petitioner’s proposed constructions are overbroad. Patent Owner’s proposed constructions, however, define “yaw” and “roll” from the frame of reference of the vehicle as a whole. *See* Prelim. Resp. 27–29. It is unclear to us, based on the current record, whether the “yaw” and “roll” with respect to the vehicle as a whole is the same as the “yaw” and “roll” with respect to “the exterior portion of the equipped vehicle at which said exterior rearview mirror assembly is attached,” as recited in the applicable claims.

We invite the parties to address this issue further during the trial.

Inst. Dec. at 15.

Claim 9 Shifts The Coordinate System...

9. The exterior rearview mirror assembly of claim 1, wherein said multi-axis adjustment mechanism is operable for **yaw and roll adjustment of said exterior mirror reflective element relative to the exterior portion of the equipped vehicle at which said exterior rearview mirror assembly is attached.**



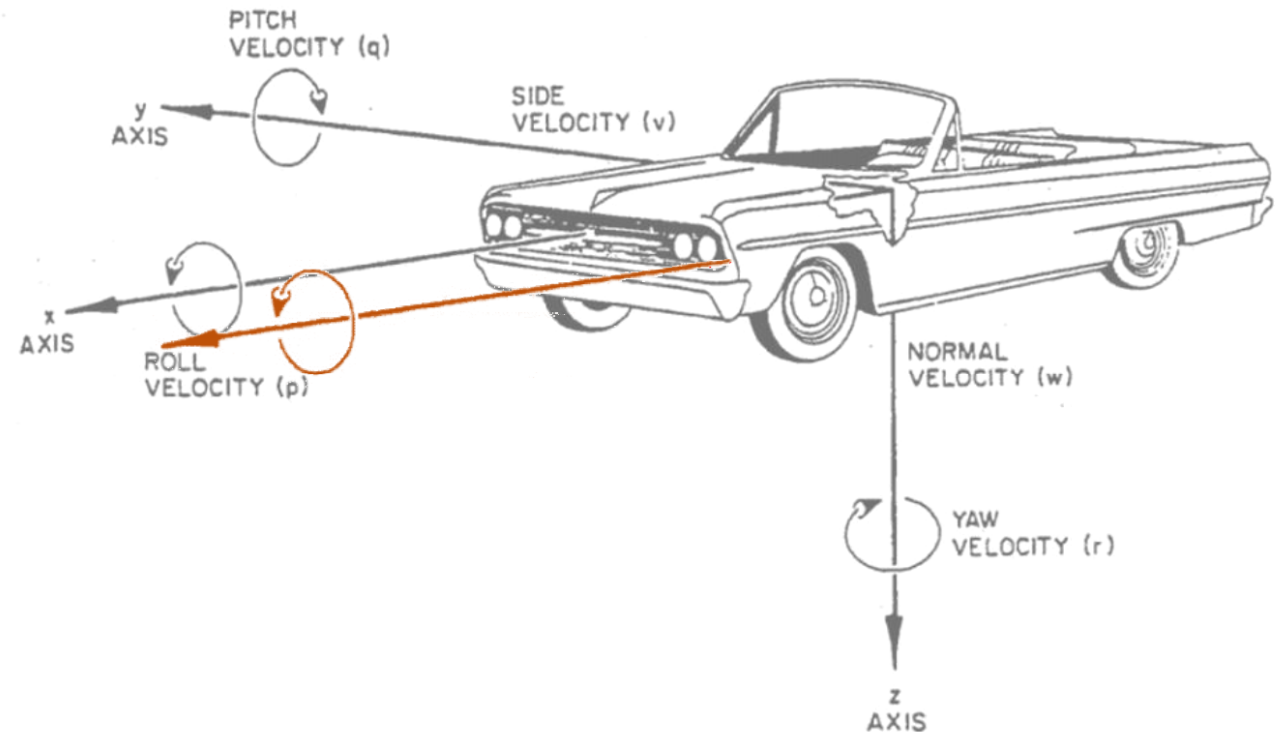
Ex. 2010, ¶ 9.

...But Does Not Reorient It

Patent Owner's Expert Nranian:

“...the frame of reference set forth in the claims does not change the ordinary direction of the pitch, yaw, and roll coordinates known to one of skill in the art. ... **it shifts that coordinate system from the center of the vehicle** (the vehicle as whole), **to the side of the vehicle** (the exterior portion of the equipped vehicle at which said exterior rearview mirror assembly is attached).”

Ex. 2010, ¶ 9; see also *id.* ¶¶ 7-14.



Ex. 2010, ¶ 9.