CLAIMS

[Claim 1]

A speaker unit, comprising:

a first diaphragm in a cone shape;

a second diaphragm in a sheet shape forming a rounded surface portion curved from one end side to another end side;

a blade piece in a plate shape to which one end side of the second diaphragm is attached;

a driver unit that drives the first diaphragm and the second diaphragm via the blade piece; and

a support member on which the first diaphragm, the second diaphragm, and the driver unit are mounted, wherein

the support member includes:

a support plate in a flat plate shape including an opening of a size from which a large diameter side of the first diaphragm is exposed;

a support surface continuously provided on the support plate and includes a rounded surface portion equivalent to the curve of the second diaphragm;

a fixing unit continuously provided at a terminating end portion of the support surface to attach the other end side of the second diaphragm thereto; and

a flexible elastic support member is arranged on the support surface, and

in the first diaphragm, a small diameter side is connected to the driver unit, the large diameter side is connected to the support plate of the support member,

the blade piece is connected to the driver unit via a center cap attached to a tip end of a voice coil of the driver unit to protrude from the small diameter side to the large diameter side of the first diaphragm, and

in the second diaphragm, the one end side is connected to the fixing unit of the support member, and

the elastic support member intervenes between a depression surface side of the rounded surface portion and the support surface of the support member..

[Claim 2]

A speaker unit, comprising:

a first diaphragm in a cone shape;

a blade piece in a plate shape to which the one end side of a second diaphragm is attached; the second diaphragm a sheet forming a rounded surface portion curved from the one end side to another end side; and

a driver unit that drives the first diaphragm and the blade piece together, wherein;

in the first diaphragm, a small diameter side is connected to the driver unit,

the blade piece is connected to the driver unit via a center cap attached to a tip end of a voice coil of the driver unit to protrude from the small diameter side to a large diameter side of the first diaphragm, and

in the blade piece, a base end side is perpendicular to the center cap and curved in accordance with a curvature of the second diaphragm as being closer to a tip end side.

[Claim 3]

A speaker unit, comprising:

a first diaphragm in a cone shape;

a blade piece in a plate shape to which the one end side of a second diaphragm is attached; the second diaphragm a sheet forming a rounded surface portion curved from the one end side to another end side; and

a driver unit that drives the first diaphragm and the blade piece together, wherein;

in the first diaphragm, a small diameter side is connected to the driver unit,

the blade piece is connected to the driver unit via a center cap attached to a tip end of a voice coil of the driver unit to protrude from the small diameter side to a large diameter side of the first diaphragm, and

the blade piece is integral with the center cap.

[Claim 4]

The speaker unit according to claim 1, wherein

the second diaphragm is formed of a foamed sheet material.

[Claim 5]

The speaker unit according to claim 1, wherein

in the second diaphragm, lengths of opposing two side edge portions along a curving direction are longer than lengths of the one end side and the other end side while the lengths of the two side edge portions are different from each other, and a protrusion surface of the rounded surface portion is oriented to a short side edge portion.

[Claim 6]

The speaker unit according to claim 5, wherein

the blade piece is attached obliquely with respect to a horizontal direction or a vertical direction.

[Claim 7]

The speaker unit according to claim 1, wherein

the elastic support member is partially arranged on the support surface.

[Claim 8]

The speaker unit according to claim 7, wherein

the elastic support member is linearly arranged along a curving direction of the support surface.

[Claim 9]

The speaker unit according to claim 7, wherein

the elastic support member is scattered and arranged on the support surface.

[Claim 10]

The speaker unit according to claim 1, wherein

the elastic support member is a flocculent member.

[Claim 11]

A speaker formed by mounting the speaker unit according to claim 1 in a housing.

[Claim 12]

A speaker unit, comprising:

a first diaphragm in a cone shape;

a second diaphragm formed as a sheet having a rounded surface portion curved from one end side to an opposite end side;

a blade piece in a plate shape to which one end side of said second diaphragm is attached;

a driver unit configured to drive the first diaphragm and the blade piece together and having a voice coil; and a center cap, wherein,

in the first diaphragm, a small diameter side is connected to the driver unit, and

the blade piece is connected to the driver unit via the center cap attached to a tip end of the voice coil of the driver unit to protrude from the small diameter side to a large diameter side of the first diaphragm.

[Claim 13]

The speaker unit according to claim 12, wherein the second diaphragm is a single sheet having a single curved surface.

[Claim 14]

The speaker unit according to claim 13, wherein both said first and second diaphragms are driven by said single driver unit.

[Claim 15]

The speaker unit according to claim 12, wherein both said first and second diaphragms are driven by said single driver unit.