CLAIMS

1. A bowed instrument comprising:

a neck (1) having a scroll (8);

a body (2), the upper face of the body being a top plate (4);

a tailpiece (16) secured at the bottom of the body and the instrument, preferably multi-layer;

a bridge (25); and

strings (14) being disposed in tensioned state between the tailpiece (16) and the scroll (8) of the neck (11), in which the strings (14) are supported from below by the bridge (25);

characterized in that the tailpiece (16) is adapted to retain the bottom portion of the strings (14) and in which the tailpiece (16) has:

an upwardly widening shape with rounded-off periphery;

an asymmetric solid triangular body with three corners (a, b, c), in which one single bore (18) is placed in the lower corner (a), and from which it is upwardly extends, and through which the tailpiece (16) is secured to the bottom part of the instrument, in the bores (20) of the two upper corners (b, c) and two further bores (20) adapted to include bottom part of the strings (14) being disposed along the arced portion (9);

and further characterized in that:

the strings (14) have different length respectively.

2. A bowed instrument according to Claim 1, characterised in that the tailpiece (14) is a multilayered body, which is formed of a core portion (21), at least one reinforcing layer (22) adapted for bounding the core portion on both sides, and an at least one-layer cover layer (23) adapted for bounding the reinforcing layer (23) on both sides.

3. A bowed instrument according to Claim 2, characterised in that the material of the core portion (21) of the tailpiece (16) thereof is at least one of the following wood materials: ebony, mahogany, afzelia, iroko, afrormosia, cabreuva, lapacho, teak, rosewood, jatoba, merbau, mutenye, wenge, panga panga, kempas, bangkirai, khaya.

4. A bowed instrument according to Claim 2, characterised in that the material of the reinforcing layer(s) of the tailpiece (16) is one of the following materials: Kevlar, carbon fabric, graphene.

5. A bowed instrument according to any preceding claim, characterised in that there is an adhesively bonded connection between the layers (21, 22, 23) of the multilayer tailpiece (16) body.

6. A bowed instrument according to Claim 5, characterised in that the adhesively bonded connection between the adhesively bonded layers of the tailpiece (16) is formed by a cyanide-containing adhesive, and/or a thermosetting resin adhesive.

7. A bowed instrument according to any preceding claim , characterised in that the bores (20) of the tailpiece (16) that are adapted for receiving the strings have a bevelled/chamfered edge configuration.

8. A bowed instrument according to any preceding claim, characterised in that the function describing the arced section extending between the corners (b, c) of the arced portion (19) of the upper portion of the tailpiece (16) adapted for receiving the bottom end of the strings is the function portion defined by the following equation and values:

$$y = a+bx+cx^2+dx^3+ex^4+fx^5$$

$$x\in [-12.96\ldots; 20.84\ldots]$$

					x_a		y_a
a	0.000000000000000888		R^2		-12.96831103		9.6360373
b	0.0163847606654536		aR^2		-9.4331008		4.09804496
c	0.0326450466094223		P		0		0
d	-0.000710668554553942		SE		1.82034226		0.13460043
e	0.000083073284331152		F		13.57826781		6.70859988
f	-0.000001250897129314				20.84428892		18.84923295

9. A string for a bowed instrument according to any preceding claim, characterised in that the string (14) disposed between the tailpiece (16) and the scroll (8) of the neck (1) has a length specified in the table below:

Instrument	String name	Total length (mm):	B string length of twisted section above the bottom button (mm):	length of playable metallic twisted section of string (mm):	length of upper twisted section for being wound on peg
Violin	G	510-680	10-30	400-500	100-150
	D	580-700	10-30	470-520	100-150
	A	600-740	10-30	470-530	120-180
	E	540-660	10-30	450-500	80-130
Viola	C	645-795	15-35	530-600	100-160
	G	685-820	15-30	540-620	130-170
	D	735-835	15-35	570-620	150-180
	A	675-795	15-35	530-590	130-170
Cello	C	1140-1235	40-60	960-1010	140-165
	G	1150-1240	40-60	970-1020	140-160
	D	1190-1290	40-60	970-1020	180-210
	A	1180-1260	40-60	950-980	190-220
Double-bass	E	1880-1950	50-70	1600-1630	230-250
	A	2020-2095	50-70	1640-1665	330-360
	D	2050-2115	50-70	1650-1675	350-370
	G	2010-2725	50-70	1650-1675	310-340