

Semitone Levers

The first modern celtic harps were equipped with blades to sharpen the note of the strings. A blade was a simple device which screwed into a hole in the arm of the harp and rotated 90 degrees to press against the string, thus shortening it and raising the note by an approximate semitone. Blades generally were difficult to fit accurately, had no obviously correct position, and were hard on strings. The lever was a big improvement, even the early models.

The 'semitone' or 'sharpening' lever is a deceptively complex device. It only has to perform one task and that seems very simple: to raise the note of a string by a semitone. But once you introduce the necessary criteria for it to function properly, suddenly it does not seem so simple!

The requirements are:

To raise the note accurately by a semitone
 To do it without loss of sound quality
 To be easy to use and quick
 To do it without undue wear and tear on the string
 To be robust enough to last
 To have parts which can be easily replaced if necessary
 To not push the string out of line too much
 To be reasonably affordable
 To fit in acceptably with the style of the harp

Suddenly, it doesn't look so easy! Indeed, the perfect lever doesn't exist - all levers have to make compromises between their advantages and disadvantages. The variety of levers now available can be bewildering to both makers and players - they work in different ways, are made of many materials and can look great or dreadful without giving out any clues as to how well they do the job.

When Starfish started, the choice of lever was limited, and we used a plastic 'cam' style lever which worked just by pushing the string to one side. Cam levers tend to be quite hard on the string; the string can buzz if it's played hard and running the string over plastic tends to dull the sound.

The second lever we used was an all-brass lever made by Robinsons Harp Shop in California. This lever worked by pushing the string to one side with a brass pin, similar to the main bridge pin, but smaller. It was an improvement in that the sound was better because the string passed over metal; it was relatively kind to the string because the small pin was a better shape to move against the string than the edge of a cam, but it was also possible to make these levers buzz by playing hard. In addition the handles were riveted on and over time either got loose or stiff, apparently at random!

Things got greatly better with the introduction of the Loveland lever, also from the USA, this time from Colorado. The Loveland lever was different in that it used a handle of 'Delrin' - a self-lubricating nylon - which moved against the string and pressed the string against a steel pin. The sound was good, because the string was bearing over metal; there was little wear on the string because the part of the lever which moved against the string was nylon, and also had a groove in it sized to the thickness of the string. Most importantly, the string was held between the handle and the pin so there was no possibility of a buzz, no matter how hard the string was played.

We used the Loveland levers for about ten years with great success. Occasionally we looked at new levers as they became available but did not feel motivated to move from the Loveland.

However, in 2005 we tested the new Camac lever, from France. In our opinion, this lever is one of the best in existence. The mechanism moves a pin against the string which is pushed against a lower barrel. This results in a very positive movement, with no wear on the string, no possibility of buzzing and no degradation of sound. We have introduced this lever onto all our harp models.

In conclusion, don't forget that the lever is only one part of the complex system that is a harp - the best levers in the world won't improve a harp which doesn't sound good with its levers off - and, surprisingly, the early harp players did seem to manage amazingly well with blades.

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