

F34 Couplers for Scale Combination and Orientation

James C. Schneider, DDS*, Cuyahoga County, Coroners Office, 8660 Columbia Road, Olmsted Falls, OH 44138

After attending this presentation, attendees will be able to better use currently accepted scales for forensic documentation.

This presentation will impact the forensic science community by allowing better use of forensic scales while demonstrating photographic documentation more accurately in a court of law.

For many years, the field of forensic Odontology has had the luxury of using scales (rulers) in the forensic community that have been proven to be of high accuracy. This is undoubtably of utmost importance when portraying evidence in a court of law, and obviously important when one studies and interprets a photographed patterned injury such as a bitemark.

However, until now, it has been difficult to professionally "surround" a patterned injury for accurate measurement recording. In the past, it has been advised that when one wished to photograph a patterned injury from multiple sides concurrently, two or more scales could be laid end-to-end or corner-to-corner. For a number of reasons, it is recommended that this technique no longer be used. When one places multiple scales end to end, or corner-to-corner, there is no assurance the scales will be in the same plane. Further, there is no assurance the scales will meet in an end-to-end relationship with no space between. And further yet, there is no assurance the scales will not overlap or be at an improper angle.

By using the scale couplers, the above-mentioned problems are solved. It has already been noted that the forensic community uses scales that have been proven to be of high accuracy, and are accepted by the legal and judicial communities. The use of the scale couplers enables existing scales to be used in a better and more professional manner. These couplers eliminate the need for the fabrication of other scales by putting to better use our already proven and most accurate scales.

The scale couplers have been fabricated in a variety of shapes with which to orient two or more scales; however, the two most common used couplers are the "corner" or 90° coupler, and the "straight" or 180° coupler.

To use, existing straight or right angle "L" shaped scales are simply inserted into the couplers that firmly hold the scales oriented. By doing so, a patterned injury, or other such displays needing to be photographed can be completely encircled. Thus, easier and more accurate measurements can be made. As one may imagine, a multitude of patterns can be photographed this way, but not limited to tire patterns, shoe prints, blood, and other body fluid spatter, gun shot residue etc.

These couplers allow scales to be oriented in the same plane and brought together to an end-to-end or corner-tocorner relationship. These couplers maintain the accuracy of the "joint" or "joints" of two or more scales for accurate measurement. These scale couplers allow the forensic community to use scales already proven accurate in yet a better manner.

Simple, and yet fabricated of high quality and standards, these scale couplers are already being used in many locations. As an advantage to photographic departments, these scales further allow the use of iridescent scales to be oriented for ultra violet imaging.

In conclusion, the scale couplers are easy to use, reusable, and enable the forensic community to better use scales already trusted.

Scale Couplers, Couplers, Photographic Couplers