

DENTAL WIRE TIGHTNER

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SUMMARY

A new simple innovation for the proper tightening of eyelet wires, Gilmer wires and interosseous wires is described. This is very useful in routine as well as in difficult cases having loose or shaky teeth.

A new dental wire tightner designed and developed in the department of Plastic Surgery, Government Medical College, Patiala is described. This has been found to be quite useful in the management of patients with maxillo-facial injuries.

Material and Method

The instrument is made of a stainless steel strip having the shape of a flat cricket bat with

rounded edges. It is 15 cm long and has a thickness of 3 mm. The narrow part is 5 cm × 1 cm. It has a gentle curve upwards. It has a hole in it which is 1 cm from its end and is about 1-1.5 mm in diameter towards the convex surface of the narrow part of the instrument. The hole has got tapering edges towards the concave surface of the narrow part of the device. The widening of the hole on the convex surface permits folding of the wire ends around

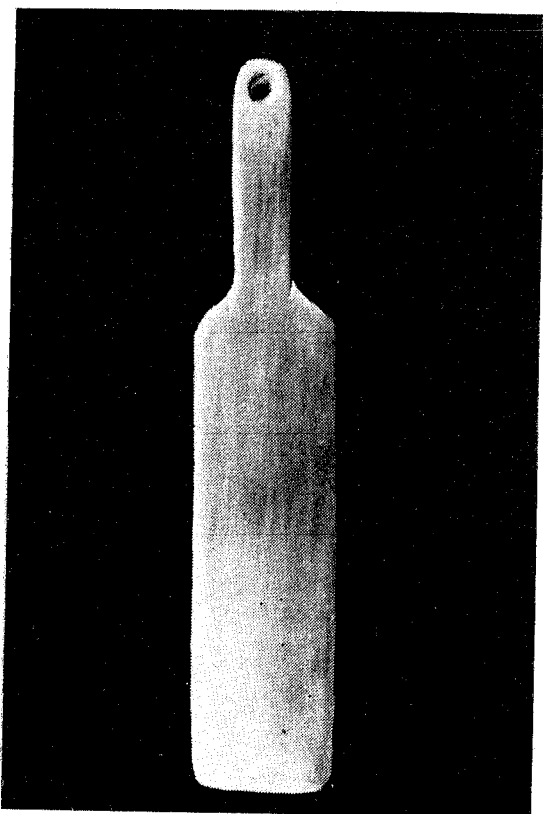


Fig. 1. Instrument upper surface showing tapering sides of the hole.

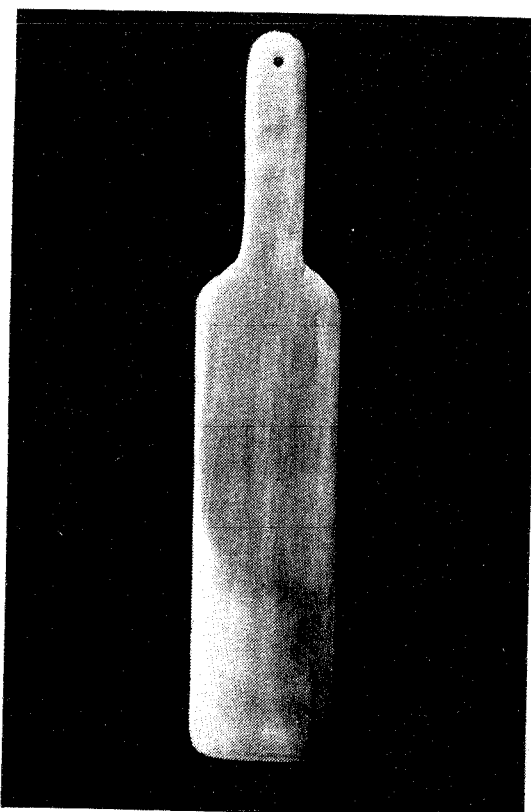


Fig. 2. Showing undersurface of instrument which comes in contact with teeth.

the working end with minimal friction. The hole can admit 2 or 3 stainless steel wires of 28 or 30 gauge. The wider part is 10 cm × 2 cm. It acts as the handle when the instrument is in use.

After the eyelet or Gilmer wire has been round the teeth/tooth, both ends of the wire are brought out through the hole so that the concave surface of the narrow part of the instrument is towards the teeth. The instrument is pressed against the teeth and both ends of wire are pulled and wound around the narrow part of the instrument which is then twisted very easily without any tendency for the wires to loosen. After the wires have been twisted the instrument is removed from the wire.

Advantages

1. When the wires are twisted with the help of artery forceps there is always a tendency towards loosening of the first twist i.e. the twist closest to the teeth; more so in the premolar and molar areas slipping of the wires and damage to the jaws of the artery forceps

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is a common occurrence. Now with the help of this instrument when the wires are brought out through a small hole and then pulled and twisted, the tendency of loosening of first twist disappears. When first twist is tight remaining part is quite easy.

2. When wires are to be put and twisted around loose teeth there is always a danger of their coming out and wires cannot be tightened properly. When twisting of wires around shaky teeth is done with the help of this instrument, it gives support to the shaky teeth by counter pressure and thus prevents their rooting out and allows proper tightening of wires.

Conclusion

This is an inexpensive but very useful instrument in routine and difficult dental and interosseous wiring. Not much expertise and skill is required in its manufacture. It is hoped that this will prove to be a useful addition to the armamentarium of plastic, dental surgeons and oral surgeons.