

tached and then infiltrate the area around which paresthesia has been obtained." 1 reference.

J. C. M. C.

JAMES, N. R.: *Machines for Regional Analgesia*. Proc. Roy. Soc. Med. 37: 525-526 (July) 1944.

"Ever since the introduction of practical methods of regional analgesia during the latter part of the last century, numerous machines have been constructed with a view to replacing the syringe with its many disadvantages. . . . We have eliminated the defects in the earlier machines. . . and the apparatus is: (1) safe to operate (automatic safety trap); (2) of robust construction, stainless steel being used extensively; (3) portable; (4) easily sterilized and charged. (5) It has a large capacity of 5 litres. No means of measuring the dosage is provided, as our experience has shown that when weak solutions are used the dosage is of no account. An aspirating device worked by an injector may if wanted be attached to the pistol. . . . This infiltrator should prove of special service to those who use infiltration analgesia as a routine in thoracic, cranial, and plastic surgery."

J. C. M. C.

MCALLISTER, K.: *Local Anaesthesia for Conservative Work*. Oral Health 34: 632-634 (Oct.) 1944.

"It is generally agreed that local anaesthetics should be isotonic, and that they should be injected slowly at blood temperature; that alkalinity improves

them is not so generally accepted. . . . The active constituents of most local anaesthetics are either cocaine or novocain, with adrenalin. . . . A significant difference between cocaine and novocain is that the former is a vasoconstrictor, while the latter is a vasodilator. This has a great influence on the use of adrenalin. . . . Although the systemic effects of submucous injections containing adrenalin in strengths of  $\frac{1}{500,000}$  or less are usually negligible and transient, they increase markedly as the strength is increased, or, alternatively, if the same strength is injected into an area containing larger vessels, such as bone. It is thus desirable to use adrenalin in the weakest concentration which will effect localization, in order to avoid uncomfortable general effects. . . . The object of the injection is to bring solution into contact with root apices; the nearer it can be deposited in the first place, the less time it will take to infiltrate intervening tissues, and the less dilution it will receive from tissue fluids. . . . When the intraosseous injection is used, lip and cheek are not involved, a fraction of the volume is required and anaesthesia is immediate. . . . The requirements for pulp anaesthesia are that it will be certain, immediate, and have no systemic effect at the time of injection or post-anaesthetic local discomfort. A combination of the intraosseous injection and the use of a weak cocaine and weak adrenalin solution seems most nearly to fit these requirements."

J. C. M. C.