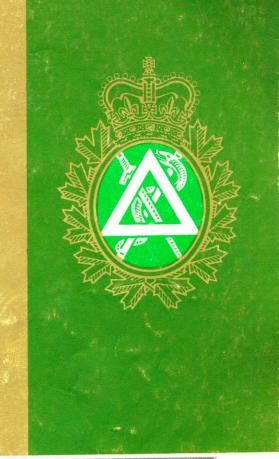
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# CANADIAN FORCES DENTAL SERVICES Quarterly









# The CFDS Quarterly



VOLUME 11 · NUMBER 2 · JULY 1970

Published by authority of Brigadier-General GC Evans, CD, DDS, in April, July, October and January, The Quarterly serves as a means for the exchange of ideas, experiences and information within the Canadian Forces Dental Services. Views and opinions expressed are those of the authors and are not necessarily those of the Director General of Dental Services or the Department of National Defence.

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#### Cover Photo

BGen BP Kearney retires ... BGen GC Evans appointed DGDS (see Corps News)

The CFDS Quarterly may be subscribed for at \$4.00 per year by writing to:

Director General of Dental Services, Canadian Forces Headquarters, Department of National Defence, Ottawa 4, Ontario, Canada.

# LETTERS .... TO THE EDITOR ....

Dear Sir:

In an article by Major JVP Chatwin (Vol 10 No 4, Jan 70, p.4), the following text appeared:

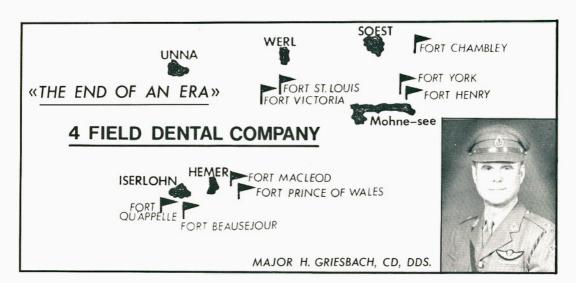
"This is a time-consuming procedure and the World Health Organization (WHO), moving into the computer age, developed an International Dental Epidemiological Method Series to simplify surveys. The survey used by the Corps in this study is a part of that series. The WHO points out ".... instead of recording in detail the status of all teeth or regions of the mouth, only the most severe level to which the disease has advanced anywhere in the mouth is recorded. Thus, if periodontal disease has advanced to the degree that the subject has one or more periodontal pockets he is classified as being in that disease severity group. This provides direct information that the subject is in need of treatment for periodontal pockets, and the relative number of population in the various severity categories may be used to estimate over-all treatment needs."

This text refers to the first draft of a manual which has only recently been produced in document form by WHO with many fundamental changes. The methods proposed in the draft manual were tested in a number of countries and several of these methods are still being tested by WHO to assess their suitability for international use at a later date. The official document is entitled Basic Oral Health Survey Methods and is available from the Dental Health Unit, WHO, Geneva, on request. The manual has been designed to maintain as much comparability as possible with basic descriptive surveys which have been performed in the past in a number of countries using the methods defined in the WHO Technical Report Series Publication No. 242 - standardization of Reporting of Dental Diseases and Conditions. There are, however, a number of changes which were made with the major objective of providing the simplest method compatible with the provision of data adequate for planning of public dental health services. To allow for situations of varying complexity, a number of elective measurements of oral diseases and conditions are included, as well as those measurements recommended as basic or minimum requirements.

Associated with this manual is an offer of assistance by the Dental Health Unit, both in pre-survey planning and in data summary and analysis according to a standard program. In line with the provision for elective measurements, assistance in data summary and analysis may be provided following negotiation for elective as well as basic measurements and where necessary with variations in the standard tables provided. Survey forms may also be provided either singly for local reproduction or where desirable, in bulk. The mark sense cards reproduced in Major Chatwin's article are no longer available, either for the survey method proposed in the draft manual or for that in the final document.

The title International Dental Epidemiological Methods Series has been dropped as has the proposed numbering of manuals. To date, the other manual available on request from the Dental Health Unit, Geneva, is the International Classification of Diseases - Application to Dentistry and Stomatology (ICD-DA). The ICD-DA provides a numerical classification comprising five digits for oral diseases and conditions. It is of special importance in standardizing records in oral pathology and diagnostic departments and it is hoped that it will provide a means for collecting epidemiological data on rarer oral conditions as use of the system becomes widespread.

1211 Geneva 27, Switzerland 11 June 1970 Dr. V1. Rudko Chief, Dental Health World Health Organization



An article by Colonel GC Evans dealing with the history of 4 Field Dental Company was published in The Quarterly, Vol. 6, No. 4, January 1966. This report updates the unit history to its' disbandment as a result of the reorganization of the Canadian Forces in Europe.

#### Commanding Officers

In August 1965, LCol LA Richardson arrived to replace LCol G MacDougall as Commanding Officer and in July 1968 LCol GE Windsor took over command, blissfully unaware that he would go into the annals of the RCDC as the last Commanding Officer of 4 Field Dental Company.(see photo)

#### Field Training

June and Sennelager have been synonymous in the language of 4 Brigade and 4 Field Dental Company. In the 1966, 1967 and 1968 concentrations, a laboratory, the HO and the OM were set up in the field and mobile clinics were attached to major units. In 1969, 4 Field Dental Company concentrated as a unit. Everyone, including base dental personnel lived in the field for at least a week, to become familiar with field equipment and to qualify on personal weapons. For Sennelager 1970, from 26 June to 17 July, two dental officers came from 35 Field Dental Unit to run the show, assisted by a sergeant and two corporals of 4 Field Dental Company. Again, the dental sections did not accompany their units but concentrated with the field ambulance.

The brigade fall exercises in the Soltau training area in September of each year gave dental personnel further field experience with dental detachments participating, supported by HQ and a laboratory section.

In October 1966, HQ and five dental detachments took part in Exercise CHECK-MATE. In September 1967, the unit moved straight from Soltau to the British Army of the Rhine exercise ROB ROY in the Hannover-Kassel area. 2 British Division exercise KEYSTONE in October and November 1968 saw HQ, five dental detachments and a laboratory section in the field. The field training exercise MARSHMALLOW in October 1969 required twenty dental personnel.

#### Professional Training

4 Field Dental Company continued to sponsor Dental Officers' Professional Meetings with guests from the British and United States Dental Services regularly attending. The meetings took the form of seminars based on presentations by members of the group or on professional films available from several sources. On four occasions, US Army dental officers in Kassel and Royal Army Dental Corps officers at the British Military Hospital in Iserlohn were hosts at the meetings.

During this period, a Dental NCOs Study Group held meetings of a similar nature. Fortunate indeed were the dental officers who had the opportunity to attend one of the excellent professional training programs of the US Dental Services in Germany. They attended US Army Europe annual Dental Training Conferences in Garmisch, US Army Medical Command Europe General Dentistry Training Seminars in Frankfurt, Nurnberg and Landstuhl, and a US Air Force Europe Dental Training Conference in Wiesbaden.

#### Preventive Dentistry Program

This program was initiated by March 1968, and in February 1969 self-preparation was introduced. It soon became apparent that the necessary cooperation of every brigade unit could not be taken for granted, especially in field units with full and continuous training schedules. However, this difficulty was overcome early in the program.

#### Dental Care for Dependants

In 1965, 4 Canadian Infantry Brigade Group finally gained the support of Canadian Forces Headquarters for a plan for dependants' dental care. Approval followed quickly and by January 1966 work had been started to convert two-bedroom apartment-type married quarters in Soest, Werl and Hemer to dental clinics, increasing the total number of

static clinics in 4 Field Dental Company to ten. Three Canadian civilian dental nurses were hired. The clinic in Soest opened in February 1966, those in Hemer and Werl in March. From the first day to the last, the demand for dental care by dependants was heavy.

#### Sports

The golfing and curling seasons usually culminated in a confrontation with "those people down south" (35 Field Dental Unit), and it stands to reason that to 4 Field Dental Company personnel the horse's posterior has always been the south end of the trophy. The golf course in Fort St Louis Annex and the curling rink in Fort Chambly were not entirely shunned by the unit and it was not by accident that LCol Windsor became President of the Maple Leaf Curling Club less than a month after his arrival in Germany and remained President for the following season. The senior NCOs of 4 Field Dental Company had their hours of glory when on a unit sports day in Sennelager they walked away with all the prizes. had devised a scoring system which only they were able to interpret.

Contrivance was not necessary for Capt AN Swanzey to win the British Army Light Heavyweight Judo Championship in Colchester, England on 30 March 1968.



#### The Axe Falls

The decision of the Canadian government to reorganize the Canadian Forces in Europe and to move the reformed 4 Canadian Mechanized Brigade Group from Westphalia to Lahr in the Black Forest spelled the end of 4 Field Dental Company. It meant that in the summer of 1970, most personnel would return to Canada, some would go to Lahr and a few would remain in Soest until 1971. Eight of the ten dental clinics were to close between June and October 1970 with the clinics in Soest and Fort Chambly remaining in operation until June 1971.

Clinical equipment which can be used by 35 Field Dental Unit will be shipped to Lahr. Field equipment including clinic vans, a laboratory van, trailers with generators and a quarter-ton truck will also go to 35 Field Dental Unit.

A considerable quantity of dental

equipment will remain in the Soest area for disposal action. The Royal Army Dental Corps expressed interest in taking over six clinics with certain major items of dental equipment left in situ. Equipment of North American manufacture, the value and usefulness of which warrants crating and shipping, will be returned to Canada.

The Royal Canadian Dental Corps flag has been lowered for the last time in northern Germany. Nineteen years of dental service in Hannover, Soest, Werl and Hemer come to an end. The massive shuffle of approximately 14,000 service members and their dependants returning to Canada and moving to other parts of West Germany eclipses the move and masks the emotions of the members of 4 Field Dental Company involved in the exodus.

"What custom has endeared, we part with sadly...."

#### ADDENDUM

The following names completes the list of RCDC personnel who have served with 4 Field Dental Company over the years (see The Quarterly, Volume 6, Number 4, January 1966)

#### 1966

Major MN Deyette
Capt H Griesbach
Capt AN Swanzey
Capt GW Hill
WO2 WA Bennett
SSgt J Dion
SSgt GF Keogh
Sgt G Sapergia
Cpl GG Albertson
Cpl JAN Audet
Cpl DS Smith
Cpl WE Tweed

#### 1967

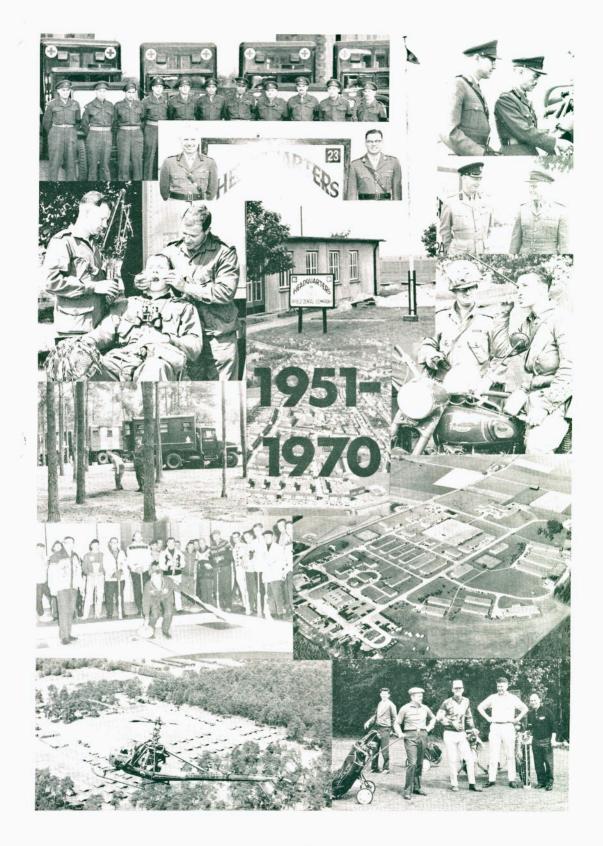
Capt JRC Bellerose
Capt RM Depledge
Capt GR Nye
Capt HS Wood
Capt RJ Shirkey
WO2 EMB Everett
SSgt JV Minnelli
Sgt P Fox
Sgt WL Wylie
Cpl AM Burns
Cpl JG Labrosse

#### 1968

LCol GE Windsor Capt JPDC Grise Capt GD Petrie MWO JW Hutchinson Sgt A Schuh Cpl RS Black Cpl JMM Arbour

#### 1969

Major DG Jones Capt EF Foley Capt WA Gray Capt DC Morgan WO JD Hossdorf Sgt LI MacLean Sgt RA Garnhum Sgt MJ Hall Sgt WB Looker Cpl TR Kukurudziak Cpl MJC Michiels Cpl RM Haiplik Cpl MJ Craig Cpl JJ Vasek Pte GW Bowman Pte GR Lamontagne



### RETENTION CYSTS



MAJOR G.S. ZWICKER, BSc, DDS.

The retention cyst, a relatively common lesion, can occur practically anywhere within the oral cavity. The anterior one-half of the hard palate is the only exception as this area is devoid of salivary glands.

The two lesions to be discussed in this brief article, and their definitions? are:

<u>Mucocele</u>: a cystic lesion with accumulated mucus secretion from submucosal gland origin; and

Ranula: a cystic lesion beneath the tongue, due to obstruction and dilatation of the duct of the sublingual; less commonly the submandibular or an accessory mucus gland. The condition is frequently complicated by rupture.

#### **PATHOGENESIS**

A mucocele is traumatic in origin, e.g., traumatic occlusion, self-inflicted bite, et cetera. As a result, a duct becomes obstructed and increased pressure leads to perforation of the duct and secretions enter the surrounding tissue.

A ranula is also thought to be of similar origin; something causes a duct defect. It has also been reported that it might be of congenital origin.<sup>3</sup>

#### GROSS APPEARANCE

Mucocele. These lesions, which occur at any age, are commonly found on the inner surface of the lower lip, angle of the mouth, buccal mucosa and anterior aspect of the tongue. Rarely do they occur on the palate but may be seen in conjunction with nicotine stomatitis. They appear as a superficial lesion, a

round to oval, circumscribed vesicle up to lcm. in diameter. They have a bluish translucency and the mucinous content gives them a fluctulant characteristic. They often resemble an angioma.

Ranula. These lesions, usually seen in adults, occur in the floor of the mouth, associated most frequently with the sublingual gland (Bartholin's duct), although they may involve the duct(Wharton's) of the submandibular gland. The size of the lesion varies and actual displacement of the floor of the mouth and tongue can occur. It appears as a raised, circumscribed lesion up to 3cm. in diameter. It has a bluish translucency, fluctuates, and the contents are similar to that of the mucocele.

Both lesions are normally painless and discovery usually follows the displacement of tissues or post-traumatic comp-



Mucocele - Lip



Ranula - Floor of Mouth

lications, e.g., biting leading to rupture.

#### MICROSCOPIC APPEARANCE

The basic features indicate that these lesions are not true cysts. The "cystic" cavity is a cavity in connective tissue and submucosa, which causes the mucosa to be elevated and the epithelium to be thinned. The wall consists of a lining of compressed fibrous connective tissue and fibroblasts. In some cases the basic content of the wall may be granulation tissue. In any event, the lesions exhibit infiltration by polymorphonuclear leukocytes, plasma cells and lymphocytes.

Mucocele. The cyst lining consists of submucosal fibrous connective tissue or granulation tissue, along with remnants of cuboidal, ductal or columnar mucus secreting cells.

The mucus may contain fibroblasts with lymphocytes, plasma cells, histiocytes, neutrophils and phagocytized mucus. Submucosal gland lobules are also present with chronic interstitial inflammation with foci of mucus collections. These can be mistaken for cystic mucoepidermoid tumors because they may contain zones of squamous metaplasia in dilated glands.

Ranula. The cystic lining consists of reactive granulation tissue and the mucus content shows a scattering of degenerating cells. The surrounding glandular tissue is the site of an interstitial inflammation with polymorphonuclear leukocytes, lymphocytes and plasma cells present.

Initially the mucus accumulates in the tissue; anastomosis results in a central mucus-filled cavity.

#### TREATMENT AND PROGNOSIS

Mucocele. Complete excision is the only treatment which can prevent recurrence. Simple incisional measures will simply allow the contents to escape and upon healing of the defect, the lesion will recur.

A wide eliptical incision is made around the lesion. The cystic sac is

then grasped with Allis forceps, tension applied and sharp dissection into the underlying tissues to a depth which will facilitate removal of the gland is carried out. In lip lesions the incision should conform with the lines of tension of the lip itself. Superficial sutures are usually adequate. Recurrence is rare providing the involved lobules of the submucosal gland are also excised.

Ranula. Most operators prefer to parttially excise or marsupialize this lesion, due to its size and location. However, once the lesion is incised, the fluid escapes and the cyst is difficult to find. Archer<sup>7</sup>has recommended the aspiration of the fluid contents followed by packing the cavity with 1/4 -inch gauze for demarcation purposes.

Small<sup>8</sup> recommends the injection of irreversible hydrocolloid (alginate) following the aspiration of the fluid



Aspiration of Fluid and Injection of Alginate



Sutures Placed



Alginate Impression

content. A large needle (16-18 ga) is used, both to aspirate the fluid and inject the alginate; the syringe itself is simply changed.

Following the set of the material, the cystic lesion, now a ball of alginate, is dissected free from the underlying tissues. In essence, the roof and the walls of the lesion are removed. The floor remains and the edges are sutured to the surrounding soft tissues in the floor of the mouth. Protection to the remains of the lesion is in most cases not required.

Healing is usually uneventful and recurrence is rare following this mode of treatment.

#### SUMMARY

Traumatized minor or accessory salivary glands commonly result in cystlike lesions. Treatment should be complete or partial excision as outlined above.

#### References

- Bhaskar, S.W. Synopsis of Oral Pathology. St.Louis, C.V. Mosby Co., 1961.
- Dorland's Illustrated Medical Dictionary, 23rd Ed. Philadelphia, W.B. Saunders Co.
- Colby, R.A., Kerr, D.A., Robinson, H.B.G. Atlas of Oral Pathology, 2nd Ed. Montreal, J.B. Lippincott Co., 1961.
- Thomas, K.H. and Goldman, H.M. Oral Pathology, 5th Ed. St.Louis, C.V. Mosby Co., 1960.
- Schafer, W.G., Hine, M.K., Levy, B.M., A Textbook of Oral Pathology. Philadelphia, W.B. Saunders Co., 1961.
- Docherty, M.B., et al. Tumours of the Oral Cavity and Pharynx. Washington, D.C., Armed Forces Institute of Pathology, 1968.
- Shira, R.B. Treatment of Benign Soft Tissue Lesions of the Oral Cavity. D.Clin.N.America, July 1964, p. 324.
- 8. Small, E.S., Chief of Oral Surgery, U.S. Naval Dental School, U.S. Naval National Medical Center, Bethesda, Maryland. (Personal communication)

# The Distal Extension Removable Partial Denture: ABUTMENT TOOTH CONSIDERATIONS

CAPTAIN E.D. CRAGG, DDS.

Abutment teeth adjacent to distal extension bases are subjected to not only vertical and horizontal forces but also to torque resulting from the movement of the tissue supported base. Slight movement of tooth-tissue born denture during function is desirable to minimize this

torquing force on the abutment tooth.

This article deals with some aspects of abutment tooth selection and retainer design relevant to the construction of a distal extension removable partial denture.

#### ABUTMENT TOOTH SELECTION

The quality of the alveolar support of an abutment tooth is of primary importance because the tooth will be called upon to withstand greater stress loads when supporting a denture.

Evaluation of alveolar support to determine the height and quality of the remaining bone must be both clinical and roentgenographic. The factors to be considered include the size of the trabecular spaces, the bone at the interproximal crest and the thickness of the lamina dura, the thickness of the periodontal space, index areas, root morphology and the degree of tooth mobility.

The Size of the Trabecular Spaces. The size of these spaces may vary considerably within normal limits. Abnormal stresses may create a reduction in the size of the trabecular pattern, particularly in that area of bone directly adjacent to the lamina dura of the affected tooth. This bone condensation is often regarded as a favourable bone response, indicative of an improvement in bone quality. However, if these stresses are not relieved, a decrease in patient resistance may lead to bone resorption.

The Lamina Dura and the Interproximal Crest. During an active tipping process, the lamina dura is uneven with evidence of both pressure and tension on the same side of the root. An irregular intercrestal bone surface often indicates bone deterioration.

Thickness of the Periodontal Space. An increased thickness of the periodontal space ordinarily suggests varying degrees of tooth mobility. This must be evaluated clinically.

Index Areas. Index areas are those areas of alveolar support that indicate the response of bone to abnormal stress. Favourable reaction to such stress may be taken as an indication of future reaction to an added stress load and is referred to as a positive bone factor. Teeth elsewhere in the same arch may then also be expected to react favourably to abnormal loading.

Root Morphology. Teeth with multiple

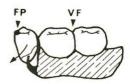
or divergent roots will resist stresses better than teeth whose roots are fused or conical since the forces are distributed through a greater number of periodontal fibres to a larger amount of supporting bone.

Tooth Mobility. Ideally, an abutment tooth should have zero mobility. First degree mobile teeth should be clasped only when necessary. The tooth crownroot ratio is the important consideration. The clasp arm should be as close to the fulcrum point of the tooth as possible. This may necessitate clasping a retentive area on the root surface. Where possible, second degree mobile teeth should be splinted, not clasped. The prognosis for third degree mobile teeth as abutments is poor.

#### DIRECT RETAINER DESIGN AND PLACEMENT

Clasp Design - The Retentive Arm. During function, the distal extension saddle moves toward the tissue. If a disto-occlusal rest is used, it becomes the fulcrum point (FP) and that part of the clasp that lies in an undercut area will engage the tooth causing a lifting action. This is true of both a circumferential clasp and the commonly used T-bar clasp and is due to the fact that the clasp wraps around the natural contour of the tooth and is inflexible. This can be overcome by using either a wrought wire retentive clasp arm which can be flexed freely or an I-bar. The tip of the I-bar contacts the tooth at its point of greatest convexity. A vertical force (VF) on the saddle results in a downward and forward movement of the I-bar when used with a mesially placed occlusal rest, causing the I-bar to disengage the tooth (Figure 1).

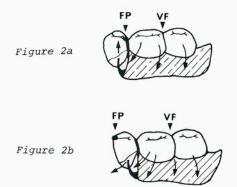
Figure 1



When a circumferential clasp is placed on a tooth, the natural contour

of the tooth is altered. Interference with the natural flow of food over the tooth and onto the gingiva results in loss of tissue stimulation. This distortion of tooth form provides a space for food debris to accumulate between the clasp and gingiva. A much more natural situation exists when an infrabulge I-bar cast clasp is used. This type of clasp causes the least possible distortion of natural tooth contour and allows for natural food flow, gingival stimulation and minimal contact of the clasp with the tooth.

Occlusal Rest Placement. The distal extension removable partial denture becomes increasingly tissue supported as the distance from the abutment increases. Close to the abutment the occlusal load is transmitted to the abutment tooth by means of the rest. Thus, the supporting tissue immediately distal to the abutment tooth is to some extent wasted functionally. To provide a more equitable vertical force to, as well as increasing the support provided by the supporting residual ridge tissues, it is suggested that the occlusal rest be placed as far mesially as possible from the distal extension base. The mesio-occlusal surface of the abutment tooth serves this purpose very well and is therefore preferable to the disto-occlusal rest site (Figures 2a, 2b).



In addition, the placement of an occlusal rest on the distal portion of the posterior abutment will tend to tip the tooth posteriorly when vertical force is applied to the distal extension. This, combined with the lifting action of a cast circumferential or T-bar clasp, can lead to tooth mobility and bone loss. If the rest is placed on the mesio-occlusal surface, it will tend to tip the tooth mesially where it will receive support and bracing assistance from the teeth anterior to it.

If the fulcrum point is moved to the distal surface of the tooth with an I-bar, the movement of the clasp tip will be upward and forward when a vertical force is applied to the distal extension. This will involve engagement of the undercut area and cause a torquing effect on the abutment tooth (Figure 2a). Therefore a mesio-occlusal rest site should be used with an I-bar clasp.

The occlusal rest preparation must be spoon-shaped to allow rotational movement about the fulcrum point during function.

The Minor Connector. In keeping with the I-bar-mesial rest concept, the use of a distal guiding plane is recommended. Areas of parallelism are prepared on the distal surface of the abutment tooth. These planes guide the framework into place without creating lateral stresses. The guiding plane preparation wraps slightly around the abutment tooth giving bracing support to the denture. The metal framework fits against the tooth surface and onto the ridge for a distance of about 2mm, eliminating any food trap in this area. The occlusal rest joins the major connector by means of a minor connector on the lingual surface (Figure 3).



When a mesial rest is used, a lingual reciprocating clasp arm is not desirable. Bracing is provided by the wrap-around design of the distal guiding plane and the lingual rest arm which contacts the mesio-lingual surface of the abutment tooth. The contour of the tooth is not altered, allowing natural stimulation of the lingual gingivum (Figure 3).

The metal framework must be relieved slightly in all areas of tooth and tissue contact. This can be accomplished during the try-in stage by using a pressure indicating solution of jeweler's rouge and chloroform. When the solution has dried, functional movement is simulated by finger pressure on the metal framework. Shiny spots indicating pressure points are relieved and retested until they disappear.

#### OTHER CONSIDERATIONS

The Use of Isolated Teeth as Abutments. A single abutment standing alone in the dental arch generally requires the splinting effect of a fixed partial denture if a distal extension base is to extend from it. The lack of proximal contact will subject the isolated abutment tooth to mesial tipping. Splinting will eliminate the anterior edentulous segment and provide multiple abutment support.

The Periodontally Weakened Tooth. If a tooth is too weak to use alone as an abutment tooth, it can be splinted to the adjacent tooth by casting or soldering two crowns or inlays together or it can be bypassed by using an I-bar to the buccal of the adjacent tooth, a rest on the mesio-occlusal surface of the adjacent tooth and a guiding plane to the distal of the weakened tooth (Figure 4).





#### SUMMARY

The I-bar clasp, when placed at the point of greatest circumference of the tooth and used in conjunction with a mesio-occlusal rest and a distal guiding plane will exert no adverse or torquing force on the abutment tooth.

Extracoronal retainers alter the natural tooth contour and interfere with proper stimulation of the gingiva and natural cleansing action. The infrabulge I-bar design alters natural tooth contour the least and allows for more natural gingival stimulation than any other type of extracoronal retainer, with minimal tooth contact.

An occlusal rest placed on the mesial or anterior part of the most distal abutment tooth provides soft tissue support more perpendicular to a greater area of residual alveolar ridge than does one on the distal side of that tooth.

The occlusal rest providing a mesial rotation point tends to tip the abutment tooth anteriorly where it is reinforced by other teeth.

The use of distal guiding planes provides a path of insertion for the removable partial denture without creating destructive lateral forces on the abutment tooth. Food traps are eliminated between tooth and gingiva and the necessary bracing support is provided.

#### Bibliography

Applegate, O.C. Essentials of Removable Partial Denture Prosthesis, 2nd Ed. Philadelphia and London, W.B. Saunders Co., 1960.

Henderson, D. and Steffel, V.L. McCracken's Partial Denture Construction: Principles and Technique, 3rd Ed. St. Louis, C.V. Mosby Co., 1969.

Kratochvil, F.J. Influence of Occlusal Rest Position and Clasp Design on Movement of Abutment Teeth. J.Pros.Dent. 13:114, Jan-Feb 1963.

Continuing Education Course in Removable Partial Dentures. U.S. Naval Dental School, U.S. Naval National Medical Center, Bethesda, Maryland, February 1970.

# Denthist'ry

Prior to 1660, the sole dental standard for campaigns was the possession of incisors and later, incisors and canine teeth, to enable the soldier to bite off the cap of the charge when loading his musket.

# RESCUING REMOVABLE PARTIAL DENTURE ABUTMENTS



MAJOR C. L. GULLEKSON, DDS.

McCracken states that ideally, all abutment teeth would best be protected with full crowns prior to partial denture construction. Economically this may be justified from the long-term viewpoint, but in practice full coverage is not always possible nor indicated at the time of denture construction. The dentist must therefore be able to restore defective abutment teeth at a later date and maintain the serviceability of the denture.

Frequently a removable partial denture wearer presents with a cariously involved tooth and it becomes necessary to fabricate a crown to fit components of an otherwise serviceable denture. Occasionally one encounters a situation in which an existing full crown abutment has failed and must be restored. The aim of this article is to describe how one can meet such emergencies and not have to remake or modify the partial denture. Techniques and suggestions presented have been gathered from various dental textbooks and journals but mainly from information gained while on course recently at the U.S. Naval Dental School, National Naval Medical Center, Bethesda, Maryland.

#### UTILIZING EXISTING CROWNS

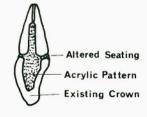
A patient presents wearing a cast removable partial denture, an abutment of which, consisting of a separate crown and post-core, has repeatedly loosened from the core or abutment root.

Investigation usually reveals a gold post too short and tapered and a favour-

able root canal. How can this problem be dealt with, minimizing patient inconvenience yet salvaging the existing crown and partial denture? Captain Granger\* suggests the following step by step procedure.

- Carefully separate the crown from the post (drill out the post rather than damage the crown).
- Inspect the interior form of the crown and alter it if necessary to provide greater parallelism between labial and lingual walls.
- Modify the post-hole to provide adequate depth and a flat base, stopping frequently to ensure visibility of the root canal. Establish mesial and distal key-ways and bevel the inside margin.
- If the existing shoulder requires modification, also perfect the crown margins; the finished restoration will show an additional cervical band of gold (Figure 1).

Figure 1



- Retract and control the gingival tissue.
- Insert the crown and removable partial denture in the patient's mouth

<sup>\*</sup>Captain Ronald G. Granger, DC, USN, Head of Fixed Prosthodontics Denture Section, U.S. Naval Dental School, Bethesda, Maryland.

and carefully attach the two together using sticky wax or autopolymerizing acrylic resin and check the centric occlusion. Remove the partial denture and the crown.

- Apply separating medium to the inside of the crown and to the posthole.
- Using a brush technique, fill the post-hole and crown with acrylic resin, over-building and using ample liquid.
- Insert the partial denture (with crown attached) in the mouth, check the relationship, and prior to the set of the acrylic, remove interproximal flash for later ease of removal.
- Remove the acrylic pattern, reduce the excess and if the margins appear indefinite, apply a thin layer of soft inlay wax and reseat in the mouth. Repeat until definite margins are evident.
- Sprue the pattern on the labial surface of the core and cast.

The above procedure is repeated using the second acrylic pattern as a temporary post and core for the crown.

The patient may be dismissed with the denture and crown in place.

Note. If it is possible to retain the original gold post and core, this may be used temporarily if it is built up to the new dimensions with autopolymerizing acrylic resin and seated with temporary cement.

#### Variations

Patient presents with loose one-piece post-crown casting in which the post is of inadequate length and contour.

Inside the solid crown develop an ideal preparation using high-speed burs and stones. Re-contour the post-hole and shoulder if necessary and proceed as described.

Note. Should the post be fractured,

with a remnant remaining, this can also, with care, be removed.

Endodontically treated tooth fractured off at the gingival margin, a full veneer crown but no post or core.

Remove the tooth structure from the crown, prepare a post-hole and follow the procedure outlined.

Note. Teeth filled with a silver point should be re-treated endodontically with gutta percha as ultra-speed cutting tends to break down the cement seal to the canal wall promoting reestablishment of periapical pathology.

#### FABRICATING CROWNS TO FIT EXISTING RE-MOVABLE PARTIAL DENTURE RETAINERS

<u>Direct Technique</u>. (Demonstrated by Captain Granger).

- Restore the mutilated tooth in a manner suited to the degree of involvement using amalgam, pinreinforced amalgam, with or without endodontic treatment, gold post and core or even cement where considerable tooth contour remains.
- Complete a crown preparation of choice, ensuring adequate clearance for occlusion and denture components.
- Select an over-size copper band, anneal, contour and crimp it at the gingival margin. Reduce the band height so that complete closure is possible without occlusal interferences.
- Heat blue inlay wax in a water bath at 135°F, fill the lubricated band, flame, temper and seat it over the prepared abutment. Direct the patient to close on a thickness of rubber dam to establish centric occlusion in the wax.
- After chilling, withdraw the pattern and remove the band by cutting vertically where the wax is thickest.
- Partially contour the pattern prior to re-seating it in the mouth. Check and modify contact areas.
- Prior to seating the denture, moderately heat the involved metal compo-

nents. Several seatings may be necessary to clearly record clasp components in the wax pattern.

- After removal of the partial denture, a small amount of wax must be added to the facial just occlusal to the fully seated retentive clasp tip. This is to develop a height of contour which thus puts the retentive clasp tip in an infrabulge relationship. The removable partial denture cannot be reseated over the pattern following this procedure. Modifications to this area of the crown can be effected after casting.
- Complete the carving in the hand and try in the mouth; then sprue and cast the pattern.

Note. This method works well in the hands of the skilled operator but for the vast majority a <u>direct-indirect</u> procedure is suggested. A die is constructed from a compound tube impression and on this the crown pattern is completed once a clear clasp record has been established.

If an acrylic veneer is to be added, contour is recorded by making a stone matrix of the completely waxed-up facial surface. The veneer space is then carved in the wax pattern and the stone matrix is invested opposite the casting when the veneer is processed.

#### Indirect-Direct-Indirect Technique.

McCracken suggested the following procedure in making crowns and inlays to fit existing denture retainers.

- Prepare the restored abutment tooth and from a copper band impression, pour a stone die.
- On the lubricated die, form a thin self-curing acrylic coping using the brush technique, leaving it just short of the margin of the preparation. The rigid coping minimizes pattern distortion.
- Add soft inlay wax to the occlusal surface of the coping, insert and have the patient close, then carve excursion paths in the wax. Add wax and insert the coping several times until contact relations,

marginal ridges, buccal and lingual surfaces are established.

Position the warmed denture components over the pattern, repeating until the denture is fully seated and clasp components are clearly recorded (Figure 2).



- Complete the wax-up on the die, adding wax to produce a retentive undercut (Figure 3); wax and cast.



Note. In fabricating inlay patterns to fit the inside of clasps the same technique is followed. Small patterns can be done entirely in wax, but larger inlays are best supported by an acrylic foundation to which wax is added.

#### Direct-Indirect Technique

Reynolds $^2$  varies his procedure as follows, depending on the extent of mutilation.

#### Considerable remaining surface contour

- Restore the tooth contour in wax with the partial denture in place.
- Remove the denture and make a rubberbase impression.
- Prepare the abutment tooth and from a band impression, pour a stone die.
- Make a thin coping of self-curing acrylic either on the lubricated die or directly in the mouth and modify it to eliminate any contact with clasp components or opposing cusps.
- Block out undercut surfaces lying gingival to the contact area on the adjacent tooth.
- Reduce the periphery and remove all

interproximal tags of the rubberbase impression. In the impression only of the tooth to be crowned, place just enough acrylic resin to complete the crown contour. (A small escape hole in the impression will prevent supra-occlusion.)

- Seat the impression in the mouth with minimum pressure and water cool until the acrylic is almost completely set. (The crown is easier to remove and occlude prior to the final set.)
- Remove and trim off the acrylic flash.
- Adjust in the mouth with the partial denture in place. (Selective grinding is done and imperfections may be filled in with wax.)
- Position the acrylic pattern on the lubricated die and finish the margins with wax. (The casting will be an exact duplicate of the anatomy of the original tooth.)

#### Considerable surface detail lost

 Complete a crown preparation on the restored tooth and pour a stone die from a band impression.

- Construct an acrylic coping on the stone die, position the coping on the tooth and seat the denture.
- Paint acrylic between the coping and clasp components using a serial build-up. To facilitate removal of the denture, avoid an excess.
- Add soft inlay wax to the occlusal surface of the coping and have the patient close in centric and go through eccentric excursions.
- Finalize the wax-up on the lubricated die, invest and cast.

The restorative methods discussed are intended as a review of some of the current literature. The method that works best in a practitioner's hands is the best for him.

#### References

- 1. McCracken, W.L., et al. Partial Denture Construction. St.Louis, C.V. Mosby Co., 1969, p.228.
- 2. Reynolds, J.M. Crown Construction for Abutments of Existing Removable Partial Dentures. J.A.D.A. 69:423, October 1964.

## THE USE OF TWO TOPICAL FLUORIDES

(An abstract reprinted from J.O.D.A., Vol. 47, No. 6, June 1970.)

It is possible that a greater reduction in caries may be achieved if two topical fluoride solutions - stannous fluoride and acidulated phosphate fluoride - were used together than if each were used alone.

Researchers report that acidulated phosphate fluoride provides a higher concentration of fluoride in the outer layers of the enamel than does stannous fluoride. Therefore, acidulated phosphate fluoride should provide superior protection against new carious lesions.

Stannous fluoride, on the other hand, has the property of caries arrestment.

Apparently, it contributes to the remineralization of partially demineralized tooth structure.

There have been no studies in which both types of topical fluorides were used together. This is a fruitful field for research. The arrestment of carious lesions and the prevention of new lesions by the use of two fluoride solutions could provide a double-pronged attack against caries.

Binns, William H. Jr., Temple University School of Dentistry, Philadelphia, Pa. A Double-barreled Approach to Topical Fluoride Therapy. Penn Dent J. 36:45, February 1969.

APPOINTMENTS AWARDS BIRTHS CONDOLENCES COURSES HONOURS HOSPITAL MARRI AGES PERSONNEL POLICE PORTS TRAIN ING TROPHIES VISION TO THE PROPERTY OF THE PROPERTY OF

#### BGen Kearney Retires

On 7 May dental officers from across Canada, their ladies and several guests gathered at the CFB Uplands Officers' Mess to honour BGen Kearney. BGen EM Wansbrough unveiled a colour photograph of BGen Kearney which will hang in the CFDSS Library, and on behalf of the members of the CFDS presented BGen and Mrs Kearney with a set of crystal and a copy of the photograph. Major CA

Casterton presented BGen Kearney with a green "masters" jacket complete with the new CFDS crest and LCol JC Brick presented Mrs Kearney with a bouquet of roses.

Following his retirement in July, BGen Kearney will take up his new duties as Chairman of the Department of Pediatric and Community Dentistry at the Faculty of Dentistry, Dalhousie University.

#### DGDS Appointed

BGen GC Evans was promoted and appointed DGDS at CFHQ on 15 July.

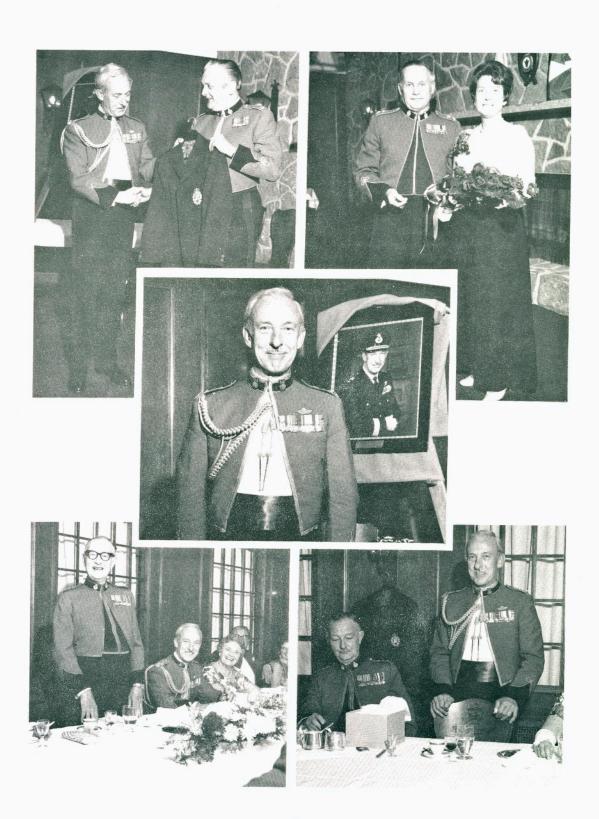
After receiving his DDS at the University of Alberta in 1944, he was commissioned as a dental officer and served in various locations in Canada and overseas including duty on board

HMCS Ontario; the wartime base at Tofino B.C. during 1945-46; Korea in 1952 and Germany from 1960 to 1963. He was posted to the staff of DGDS in July 1963 and moved to Edmonton in 1965 to become the Commanding Officer of 11 Dental Unit, an appointment he held until his recent return to Ottawa.

DGDS CONFERENCE, OTTAWA, 6-8 MAY 1970



Left to Right. Seated: Col LG Craigie, Col JW Turner, BGen BP Kearney, Col GC Evans, Col GR Covey. Standing: Col WR Thompson, LCol G MacDougall, Major DE McDermott, Major DG Cartwright, LCol JC Brick, LCol JW Fletcher, LCol LA Richardson, Capt E Clark, Major CA Casterton, LCol LR Pierce, Major JVP Chatwin, LCol NA Butcher, Col RHG Cunningham, Col GW Bagnall.



#### Czechoslovakian Training Program

The twelve graduates of the Czechoslovakian Training Program conducted by the Canadian Forces Dental Services at the University of Western Ontario were presented with their certificates at a ceremony in Toronto on 22 June.

The presentation ceremony was sponsored by the Royal College of Dental Surgeons of the Province of Ontario with BGen BP Kearney and the instructional staff as guests.

Speakers were Dr HM Jolley, President, and Dr KF Pownall, Secretary-Treasurer, of the Royal College of Dental Surgeons of Ontario, Mr TL Wells, Minister of Health for Ontario, Mr TR Watt of the Department of Manpower and Immigration and BGen Kearney. Dr Jolley and BGen Kearney each extended their best wishes to the graduates in the Czechoslovakian language.

The following correspondence is indicative of the success of the program.

Dear Mr. Cadieux:

You will recall that a retraining course was set up and conducted for the group of Czechoslovakian dentists who were unsuccessful in the Board examinations of this College in 1969.

I am sure you will be pleased to learn that twelve Czech dentists will complete the course this month and will be available for practice in this Province. May I take this opportunity of thanking you for the assistance you rendered in respect to this course and for making available to us the valuable services of Brigadier-General BP Kearney, Colonel LG Craigie, Major AG Taylor, Major JJN Wright and the other members of the Armed Forces in the conduct of the course. Their help was invaluable and contributed greatly to the success of the dentists concerned.

The President and Directors of The Royal College of Dental Surgeons of Ontario join me in this expression of appreciation of all your assistance.

Kenneth F. Pownall, DDS Registrar-Secretary-Treasurer, The Royal College of Dental Surgeons of Ontario.

8 June 1970

Dear Dr. Pownall:

I wish to acknowledge and thank you for your letter of 8 June in which you express your appreciation for the assistance rendered by the Canadian Armed Forces with respect to the retraining course of Czechoslovakian dentists.

I will be pleased to see that all concerned are made aware of the kind remarks contained in your letter.

Leo Cadieux Minister of National Defence

12 June 1970

53 years ago ...

#### MEMORANDUM

Ottawa, December 11, 1917

I observe from correspondence on this file that the D.G.M.S. has dealt with a question of dental treatment. This matter should have been referred to the Director of Dental Services for necessary action. Will you please inform the D.G.M.S. that all matters affecting the Dental Services in Canada are dealt with by the Director of Dental Services, and that in future should any questions of dental treatment be included in correspondence with medical treatment, he should, after taking action on the medical end, pass the file to the Dental Services for their attention.

Adjutant-General
Department of Militia and Defence

#### Visits

Major-General Robert B Shira, Assistant Surgeon General and Chief of the US Army Dental Corps visited the School 29 to 31 May to inspect training facilities and observe training techniques and programs. General and Mrs Shira were guests at a mess dinner in the evening of 29 May held to honour BGen BP Kearney.

Personnel of the School hosted a visiting group of educators from the Quebec Department of Education during April. The educators were interested in the types and methods of training at the CFDSS.

During the Ontario Dental Association Convention in Toronto from 10 to 13 May, LCol PS Sills presented a paper "The Challenge of Stability in Complete Denture Treatment"; Capts D Devine, D Graham and G Pinsonneault presented projected clinics on oral health devices.

#### Special Events

CFB Borden celebrated Armed Forces Day on 13 June. The CFDSS was well repres-

ented with the theme "Dentistry Under Field Conditions".

The School held a Spring Ball in the Cambrai Sergeants' Mess on 2 May. The good food and companionship made the evening extremely enjoyable although a sad note crept into the festivities when "good-byes" were said to personnel being posted out this summer.

#### Sports

Once again ardent curlers have been able to pursue their particular sport deep into a season when most sport enthusiasts have turned to baseball, golf or fishing. The first week-end in April saw the close-out bonspiel for the 1969-70 curling season at the Base Borden Curling Rink. Capt Maxie Fisk's team - MWO Bob Goodwin, Capt Dave Devine and Capt Dave Wilson - brought honour to the School by winning "A" Event. The winning team of "C" Event had two dental members: Capt Dale Graham, skip, and MWO Jack Sadler, lead.

#### US Army Institute of Dental Research - Director Appointed

Colonel SN Bhaskar has been appointed the Director of the US Army Institute of Dental Research at the Walter Reed Army Medical Center in Washington DC.

Col Bhaskar received his DDS from the Northwestern University and MS and PhD degrees from the University of Illinois. He is a diplomate of the American Board of Oral Pathology and the American Board of Oral Medicine. He has published more than 140 scientific papers and contributed to five books. In addition, he is

the sole author of three textbooks which are used in most dental schools in the United States and Canada.

The Army Dental Institute is the only organization of its kind and is devoted exclusively to military dental research and education. Seven one-week courses in various aspects of dental practice are given every year and these are attended by military as well as by more than 1500 civilian dentists.

GFDS

ANNUAL GOLF TOURNAMENT

24 · 25 September 1970

#### Promotions and Retirements

On 17 June the officers of the Division gathered to say farewell to BGen BP Kearney, Major CA Casterton and Capt E Clark. BGen GC Evans, Col LR Pierce and LCol JVP Chatwin acknowledged their promotions in the traditional manner and thus minimized the overhead costs of the party.

Each officer received a framed RCDC crest and BGen Kearney was presented with a matching framed CFDS crest and an engraved cigarette box for his new home in Halifax. Major Casterton received a special stein and a briefcase of medical interns' posting plans and Capt Clark a radio that has sufficient range to pick up Expo broadcasts.

Born in Kingston Ontario, Major "Cac" Casterton enrolled in the CDC in November 1939. He proceeded overseas with 2 Canadian Infantry Division Dental Company in June 1940 and served in the United Kingdom and North-West Europe until returning to Canada in December 1945. He was commissioned in February 1951 while serving with 11 Dental Company in Edmonton. As an administrative officer, Major Casterton served initially at CFHQ in the Division of Dental Services followed by postings to 4 Field Dental Company in Europe, The RCDC School, 1 Dental Equipment Depot and finally at CFHQ as career manager for dental and legal officers and chaplains.

On 2 July, Major Casterton joined the staff of the Association of Canadian Medical Colleges in Ottawa as Director of the Canadian Intern Matching Service.

Capt Ernie Clark has served from his enlistment in the CASF in July 1940 until his retirement in May 1970. He was awarded the British Empire Medal for his services during the Second World War. He was commissioned in June 1952 and promoted Captain in September 1955. His postings during service brought him to Ottawa four times.





Major Casterton

Capt Clark

The Clark family has moved to London where Capt Clark has accepted a position with the Faculty of Dentistry at the University of Western Ontario.

#### New Career Managers

The CFDS now have two officers working for the Director General of Postings and Careers. Major MN Deyette is the career manager for dental and legal officers and chaplains major and below, and Capt RW Bowness is the career manager for dental tradesmen.

#### Sports

Sgt PJ Dumas was presented with the Life Member Award by the CFHQ Sub Aqua Club at the Club's annual banquet in June. Since his posting to CFHQ in 1965, Paul has been diving and safety instructor and has held the positions of Secretary, Vice-Presi-



dent and President. Since the club started in 1963, there have been only three other recipients of this award.



1 July 1970. Col RHG Cunningham (standing), hands over 13 Dental Unit to Col WR Thompson.

Born in Toronto, Col Cunningham graduated in dentistry at the University of Toronto in 1940 and practiced in Toronto until November 1941 when he joined the Canadian Dental Corps.

His first posting was Camp Borden and in August 1942 he proceeded to England. In November 1943 he was posted to Italy with No 8 Dental Company and was bombed in the Mediterranean, losing all his equipment. After being re-outfitted, he was posted to the Lord Strathcona Horse (RC) and remained with that unit in Italy and North-West Europe until the end of the war. He returned to Canada in December 1945 and continued his service in Calgary, Centralia, Trenton, Ottawa, Germany and Halifax. In 1966 he returned to Trenton as CO 13 Dental Unit and Regional Dental Officer until his retirement in July of this year.

Col Cunningham served with the Dental Corps under three of its' titles: Canadian Dental Corps, Royal Canadian Dental Corps and Canadian Forces Dental Services. Col and Mrs Cunningham and their three children will make their home in London Ontario where Dr Cunningham has accepted a position with the London Board of Education.

#### Personnel

Cpl WR McIntosh successfully completed a university history course at Nipissing College in North Bay despite his extended stay in hospital ... Cpl JA Violette received his diploma as an electrical instrument technician on completion of an International Correspondence School course ... Sgt ES Beattie received the first clasp to his CD on 17 January 1970.

#### Sports

Although golf and softball are now the main activities, curling and hockey accomplishments during the past season are well remembered.

Our top lady is Cpl Bev Gilkes. Bev received three trophies at the end of the season. She won the "most improved curler" in the club, was a member of the team winning the "mixed championship for the Trenton area" and was also a member of the team winning the "mixed championship of the CFB Trenton Curling Club".

LCol RA Fell and Major IAC MacDonald were members of the rink which won the "A" Division Men's League at the Garrison Curling Club, CFB Kingston ... MWO RK Jones and WO JE Clarke were winners in the 4 RCHA Sgts' mixed bonspiel at CFB Petawawa ... MWO Jones, with WO Clarke, MWO EMB Everett and Cpl PR Coss were second runners-up in "A" Division bonspiel ... with this "sweep" we clear the "house" for summer sports ...

The golf handicaps are being worked out and the stories written at the nineteenth hole.

In softball, Cpl(W) BF Breadner is maintaining her undefeated record of last year in the Belleville and District Women's League, starting the season with a win of 25-0 and winning her most recent game by 18-2.



HQ CFB Trenton Hockey Champions for Second Successive Year. The CFB Trenton Hockey Championship Trophy is presented by LCol RF Brown to MWO RF Matheson, Captain and Assistant Coach for the 1969/70 hockey season. Last year MWO Matheson guided his team to its first championship.



Best Goalie Award. LCol RF Brown, CFB Trenton, presents the best goalie award for the 1969/70 hockey season at CFB Trenton to Cpl JLA Violette. With thirtyfive goals scored against him in twelve and a half games, Cpl Violette established a 2.84 average.



#### Petawawa Dental Conference

The CFB Petawawa Dental Clinic were hosts at the CFB Petawawa Officers' Mess for the members and wives of the Renfrew County Dental Society. These Ottawa Valley dentists came from Arnprior, Renfrew, Cobden, Pembroke, Deep River, Barry's Bay and the various towns in between. The President of the Society, Dr E Murphy of Cobden acted as host for the evening. CFB Petawawa was represented by | University of Western Ontario.

LCol LG Doiron who spoke of the relationship of the personnel of CFB Petawawa and the civilians and business community of the Ottawa Valley. Capt CW Kearns extended greetings on behalf of the personnel of the Dental Clinic and referred to the dental activities on the base and also to some of the undertakings of the Canadian Forces Dental Services, specifically the CFDS School and the retraining program for Czechoslovakian dentists at the

#### Major Nadeau to the Altar

Major HJ Nadeau married Nursing Sister Lucy Forget in an impressive ceremony on 9 May in the Maurice Chapel at the College militaire royal de Saint-Jean. Maj Nadeau now has some words of warning to young bachelors contemplating marriage: "You just can't live on love alone ... it's not true that two can live as cheaply as one..."

#### Fishy Story from Bagotville

When the trout season opened, Major FC Arpin was "Johnny on the spot" and claims that he caught enough trout to supply "all the therapists in the Corps"

with a meal of trout. We wonder why he selected therapists ... perhaps bait for one for his clinic???

#### Snow Fun

It seems out of season to be reporting winter sports but these late reports were uncovered when the snows melted ... Capt JS Dion and his wife Louise won a trophy for being members of the best first year ski patrol in the Quebec Zone ... Capt YJA Gagnon won the giant slalom and was "overall second" in the Mont Apica ski championships ... that holiday in Austria must have paid off.

# 14 Dental Unit

\*

by WO JM Roberts, CD

#### Retirements

On the evening of 1 May the unit hosted a mixed retirement and farewell party to honour Capt Herbie Doyle, retiring after thirty years service with the RCDC, the last nine years of which he was 14 Dental Unit Supply Officer. Unit members from distant clinics as well as many close friends and ex-members of the RCDC from Winnipeg attended and wished him well. Capt and Mrs Doyle were presented with a gift of fireplace accessories for their home in Richmond B.C. on behalf of unit personnel and a framed RCDC crest from all RCDC officers ... A party was held on 25 June to honour CWO Bob Daw on his retirement. Bob was presented with an inscribed silver mug ... In the afternoon of 26 June a posting and retirement party was held at CFB Winnipeg to honour MWO Bob Stewart on his retirement after 28 years with the RCDC. Bob was given a gift from the unit and everyone wished him the best of luck in his new job at the University of Saskatchewan ... At the same party, LCol NA Butcher was presented with his farewell gift on departure to a warmer climate and greener golf

courses as CO 11 Dental Unit at CFB Esquimalt.

#### Hello ... hello out there

WO Ken Libby has completed a National Institute of Broadcasting Radio-TV Announcing Course at his own expense. He started the course in October 1969 and passed the final exams in June 1970.

#### Gypsumville's Watchdog

His Worship, Mayor Wayne Wilford of CFS Gypsumville has been so successful in his attempts to infiltrate the station during security checks and practices that he has been appointed Station Security Officer.

#### Sports

On 20 May the second annual CFB Cold Lake golf tournament was held at the Palm Springs Golf Course. The winners, Capt H Pankratz and MWO J Fraser, were presented with the trophy held by the clinic. This is the second consecutive win by Capt Pankratz.

#### Visits

During late March, BGen BP Kearney and Mrs. Kearney arrived for a visit ... A luncheon on 24 March was attended by BGen Doyle, Chief of Staff, 1 Air Division, Col GH Sellar, Commander CFB Europe, Col Irwin, Regional Surgeon, the DGDS and officers of the unit ... BGen and Mrs Kearney with LCol and Mrs Protheroe toured France and Spain, returning 3 April ... The DGDS and CO 35 FDU then left Lahr for discussions concerning dental services at AFCENT and SHAPE. BGen and Mrs Kearney left for London and Ottawa on 8 April ... In May, Capt JAR Fortier, Sgt RW McDonald and Pte (W) MM Kent made a last visit to the Air Weapons Unit, Decimomannu, Sardinia, now being closed out due to the reorganization of Canadian Forces in Europe.

#### Accommodation and Personnel

The formation of CFB Europe and relocation of personnel from Soest plus an increase of three civilian dentists has resulted in construction to enlarge the clinics at Lahr and Baden-Soellingen. Apropos of the move, about half the members of this unit will be departing for Canada in the near future ... A farewell cocktail party and dinner dance was held on 13 June to say aufwiedersehen at the end of a hard-working tour in Europe ... and now that the fine weather is here, the lucky ones are taking leave to visit Europe from Norway to Spain ... no wonder they are reluctant to return to the "land of the round door knobs".

#### Sports

The final golf tournament between 4 Fd Dental Coy and 35 Fd Dental Unit teed off at Baden-Soellingen on 8 May ... the scores produced indicates that 4 Fd Dent Coy people spend a lot of time on the golf course ... A dinner was held in the evening at which Col Irwin, the Regional Surgeon and Major Boucher of 4 Wing were the guests of honour.

On 14 May six unit golfers left for Scotland to play at St. Andrews.

# Dental Detachment Cyprus





#### Visits

LCol DH Protheroe, CO 35 Field Dental Unit visited the detachment from 16 to 23 June to inspect the dental facilities available to the Canadian Contingent.

He was briefed on the political situation in Cyprus by LCol Loomis, CO 1 RCR and toured the Canadian Section.

(Photo: LCol Protheroe and Capt TJ Erskine, OIC Dental Detachment Cyprus)

#### Personnel

Sgt and Mrs Red Kerr enjoyed two weeks leave on the island ... Cpl Mitrikas is playing baseball with the Canadian Contingent "Selects", currently at the top of the league.

#### CFDS Supply Officers' Conference

The CFDS held a Dental Supply Officers' Conference at the Depot from 11 to 13 May. Supply and accounting procedures were reviewed and many changes were proposed.

(Top, left to right)

Front: Capt JF Mullins, Major DG Cartwright, LCol JW Fletcher, Capt MB Fisk, Lt LRJ Hatcher

Back: Capt EA Church, Capt VO Bergland, Lt B Vandervaart, Lt RD Townshend, Capt EM Lobb, Capt JR Savoie.

BGen BP Kearney and LCol LR Pierce visited the conference on the last day.





4 Field Dental Company \*

by Sgt P Fox, CD

#### Rotation Ball

The final Rotation Ball was held at the Castor Club in Werl on 23 May.

The organizational efforts of Major DG Jones assisted by Sgts P Fox, T Kukurudziak and W Wylie made it a tremendous success. RCDC plaques or engraved trays were presented to departing members as mementos of service in Europe.

#### Sports

35 Field Dental Unit attempted to win back the "Horse's Head" in a final golf tournament at Lahr. 4 Field Dental Company took top honours in the tournament with low gross going to LCol GE Windsor.

It seems that the "Horse's Head" will finally get to Lahr when the remaining 4 Field personnel move south.

**II** Dental Unit

\*

we miss you

#### Retirements

Twenty-six members of the unit gathered at CFB Uplands on 4 June to say farewell to MWO Del Riddell and Sgt Joe Laverty. Col GC Evans, LCol JVP Chatwin, Major CA Casterton and Capt RW Bowness were also present to wish them the best of luck in civilian life.

Del and Pat, and Joe and his new bride Doris, both intend to reside near Ottawa.

#### Course Completed

Major PR McQueen attended a course in Periodontics from 4 May to 20 June and received his certificate from Capt WC Wohlfarth, Jr, Commanding Officer, Naval Dental School, National Naval Medical Center, Bethesda, Maryland.



(Official US Navy photo)

# Professional Training



LCol AG Andrews recently completed the third year of the residency program in Oral Surgery at the Doctors Hospital, Toronto, and has been awarded his certification by the Royal College of Dental Surgeons of Ontario.

He received his previous oral surgery training at the US National Naval Medical Center, Bethesda; the Walter Reed Army Institute of Dental Research, Washington and the Royal College of Dental Surgeons, London, England.

LCol Andrews received his DDS at the University of Toronto in 1950 and has served in various locations including HMCS Magnificent, Korea, National Defence Medical Centre and as the Chief Instructor, CFDS School. He is now stationed at the School.

Major NH Andrews recently completed the requirements for certification in Periodontics at Walter Reed General Hospital. In 1968-69 he completed the Advanced Theory and Science of Dental Practice course at the US Army Institute of Dental Research.

Major Andrews received his BSc in 1958 and DDS in 1962 from Dalhousie University, following which he served with 14 Dental Unit, the CFDS School and UNEF (Middle East). He is now stationed with 12 Dental Unit, Halifax.





Major JF Begin received his Diploma in Dental Public Health at the University of Toronto. On graduation, he was awarded the Milton H. Brown award for "best combining the qualities of academic achievement, administrative talent and potential for an imaginative approach to the problems of administration".

He received his DDS at the University of Montreal in 1959 and graduate training at the Royal College of Surgeons in London, England, and the US Naval Dental School in Bethesda.

Major Begin has served in Goose Bay, Germany and Winnipeg and is now stationed at the CFDS School in Camp Borden.

Major MN Deyette completed a one-year course at the Canadian Forces Staff College, Toronto, in July. He is the first dental officer to attend staff college.

After graduation from the University of Toronto in 1961, he served in various locations including Petawawa, London and Europe. He is now at CFHQ and is the career manager for dental officers, legal officers and chaplains (majors and below).



#### Doctors Hospital, Toronto

Major JJY Turcotte ... Two-year Residency commencing 1 July.

## Canadian Forces Training

#### Canadian Forces Dental Services School, CFB Borden

Oral Surgery, 8-21 April
Major RM MacDonald, Capt JEG Joubert, Capt BW Yates, Capt JJG Jacques, Major AL
Kelland, Capt WD Fiolek, Capt AD Stewart.

<u>Dental Laboratory Technician PL6 Course, 6 May - 23 June</u>
Sgt HKK Gapmann, Sgt JRR Roy, Cpl LA Larouche, Cpl NAJ Hope, Sgt CS Brown,
Sgt WD Buxton, Cpl AH Peck, Cpl RH Stenabaugh

#### Canadian Forces School of Management, Montreal

Senior Officers Management Symposium, 19-29 May LCol LA Richardson, LCol JC Brick

#### Canadian Forces Staff School, Toronto

<u>Junior Staff Course, 11 May - 17 July</u> Capt JP Carrier

#### Canadian Forces School of Intelligence and Security

Security Supervisors Course, 3 - 25 June
WO JM Roberts

#### Canadian Forces School of Instructional Technique, CFB Clinton

Instructional Technique 1 Course, 27 April - 13 May Capt DG Wilson

Instructional Technique 2 Course, 19 May - 1 June
MWO JH Sadler

Instructional Technique 3 Course, 19 - 28 May CWO CD Morris

<u>Instructional Technique 4 Course, 6 - 16 June</u>
MWO KE Laurence

Junior NCO School, CFB Shilo

Junior NCO Course, 25 Feb - 17 April
Pte D Purich, Pte RD Calnen

#### Welcome to the Dental Services

A cordial welcome is extended to Cpl R Jones, Pte AT Baird, Pte(W) BJ Hoffermehl, Pte(W) ML Rath, Mrs JL Thistlethwaite, Pte(W) HG Christiansen, Pte(W) SV Szablewski, Pte(W) JM Andrews, Pte(W) J Stephens, Pte D Bowering, Cpl JE Frechette, Mrs H Jansma.



#### Promotions

BGen ... GC Evans; Col ... LR Pierce; LCol ... JVP Chatwin, JJN Wright; Capt ... JP Carrier, GA Ames, JCAY Ayotte, JAG Boulanger, MS Bouris, TA Bradley, JGRM Chagnon, AP Charlebois, HA Chestnut, ET Dalzell, PR Darlington, WO Donald, JJPG Duford, RJ Fennell, HV Ferber, HW Freedman, F Giesbrecht, ENH Graham, GPF Greenacre, LR Holland, LJ Hudgins, FVR Jackson, JRR Laberge, WA MacInnis, FR Margetts, DA Meredith, CG Milne, JEF Paquin, JD Rowat, JJGN Roy, JRL Salois, BP Schow, JRGB St Louis, PR Wooding, RWF Woodworth; CWO ... JM Tapp; MWO ... CH Adams; WO ... JB Arsenault, EPH Sprathoff, RM MacDonald, JP Lambert, RD Veinot; Sgt ... OW Mandrusiak, GN Challenger, CSB Heather, IG Proud, VH Swiatkevich; Cpl ... HE Lubitz, JD Hopkins, RD Calnen, LA Lambert.

# Retirements and Releases

Farewell and good luck to BGen BP Kearney, Col RHG Cunningham, Majors CA Casterton, WK Dickie, GT Crossman, VM McMaster, GW Hill, AN Swanzey, CS Zwicker, FM Nesbitt, Captains E Clark, JR Cowan, HF Doyle, BH Weeks, BB Berezon, AF Brothers, WG Ebert, Z Tukums, IC Wambera, CWO RH Daw, MWO DW Riddell, MWO RG Stewart, Sgt(W) MTV Lapointe, Sgt J Laverty, Pte(W) JE Zarudski, Mrs A Duperre, Mrs G Gray, Mrs PJ Montgomery, Pte(W) ML Chiasson, Pte(W) SA McEllistrom, WO GH Couture, Mrs BA Kelso.



#### Honours and Awards

#### Dalhousie University

<u>Capt FR Jackson</u> ... University Medal in Dentistry, Dr. Frank Woodbury Memorial Prize (Highest Standing), Dr. Frank Woodbury Memorial Prize (Clinical Practice), The Canadian Society of Dentistry for Children Award, The Halifax County Dental Society Award.

<u>Capt ET Dalzell</u> ... The Dr. John W. Dobson Memorial Prize (Periodontics), The American Society of Periodontics Award.

<u>2Lt JB Delong</u> (third year) ... C.V. Mosby Book Award for highest marks in Fixed Partial Denture Technique.

<u>2Lt TP Levy</u> (second year) ... C.V. Mosby Book Award for highest marks in Microbiology and General Pathology.

#### University of Alberta

Capt P Wooding, Capt BP Schow, 2Lt DR Wright (second year) ... First Class Standing.

#### Vital Statistics

#### Marriages

Congratulations and many years of happiness to Miss Gloria Andruniak and Mr G Saunders ... Lt(NS) ML Forget and Major HJ Nadeau ... Miss Judith Silver and Cpl GR Lamontagne ... Miss Doris Thom and Sgt J Laverty.

#### Births

Congratulations and may your children support you in your old age:



Sons ... Capt and Mrs BW Yates ... Cpl and Mrs JE Sadler ...
Capt and Mrs ED Cragg ... Sgt and Mrs CS SabinePasley ... Sgt and Mrs MG Olinik ... Cpl and Mrs
JW Griffiths

Daughters ... Capt and Mrs TC Ringland ... Cpl and Mrs H
Snutch ... Capt and Mrs CJ Sharpe ... Capt and Mrs
JM Simoneau ... Sgt and Mrs ML Allen ... Capt and
Mrs JRGB St Louis ... Sgt and Mrs H McRae

#### Condolences

Sincere sympathy is extended to LCol RA Fell and Cpl R Ellison on the loss of their fathers.

## In Alemoriam

With sincere sympathy to his family, we announce the passing of Sgt Melbourne Donald Crockett, CD, fatally injured in an automobile accident near Cold Lake, Alberta, on 27 June 1970.

Sgt Crockett was born in Charlottetown, P.E.I. in 1924, served during the Second World War to March 1946 and re-enlisted at Halifax in 1951. He is survived by his wife Carol Rachel and two children. Internment was at Charlottetown.

# DO YOU REMEMBER?

