

# **Training notes for dental operating room assistants of the Royal Army Dental Corps / the War Office.**

## **Contributors**

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**DENTAL OPERATING ROOM**  
**ASSISTANTS**  
**of the**  
**ROYAL ARMY DENTAL CORPS.**

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# NOTES FOR DENTAL OPERATING ROOM ASSISTANTS

## ROYAL ARMY DENTAL CORPS

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TRAINING NOTES FOR DENTAL OPERATING ROOM ASSISTANTS

ROYAL ARMY DENTAL CORPS

These Notes are based on the Syllabus of Training for Dental Operating Room Assistants as laid down in Standing Orders for the Royal Army Dental Corps.

Amendments are not normally issued and these "Notes" should be kept up to date by careful study of current regulations.

THE WAR OFFICE (A.M.D.6)

1 9 5 0

## SECTION I

### THE NORMAL HUMAN DENTITION.

#### A. The Permanent (or Adult) Dentition :-

Number:- 32 teeth in the normal adult mouth  
16 in the upper jaw (maxilla)  
16 in the lower jaw (mandible).

Names:- Starting from front to back in each half of the jaw, there are:-

1 central incisor	}	for cutting
1 lateral incisor		
1 canine		

2 premolars	}	for grinding
3 molars		

Shapes:- teeth are hard structures consisting of 3 parts:-

Crown - normally projecting above the gum

Root - normally embedded in the bone

Neck - the constricted part between crown and root.

A central cavity contains the pulp, a soft structure of nerves and blood vessels which enter the root at its end (apex) through a small opening called apical foramen.

The number of cusps and roots vary from front to back as follows:-

	<u>Cusps</u>	<u>Roots</u>
all incisors	0	1
all canines	1	1
Upper first premolars	2	Usually 2, sometimes 1
Upper second premolars	2	Usually 1, sometimes 2
Upper molars	4	3
Lower molars	5	2



Surfaces:- A tooth has 5 surfaces, like the 4 sides and top of a box.

Each side has a special name, thus

- LABIAL - side nearest lips - for incisors and canines only
- BUCCAL - side nearest cheeks - for premolars and molars only
- LINGUAL - side nearest tongue
- MESIAL - side nearest median line
- DISTAL - side furthest from median line.
- INCISAL - the cutting edge - incisors and canines only
- OCCLUSAL - the biting surface - premolars and molars only.

B. The Temporary (or Deciduous) Dentition

Number:- 20 teeth - 10 in each jaw

Names:- from front to back, in each half of the jaw,

- 1 central incisor
- 1 lateral incisor
- 1 canine
- 2 molars.

Shapes:- similar to, but smaller than, corresponding permanent teeth. Their necks are markedly constricted.

SECTION II

MEANING OF DENTAL CHARTS

The dental chart, printed in Parts 1 and 2 of the Dental History Card (A.F.I.5033), is a diagrammatic record of the teeth.

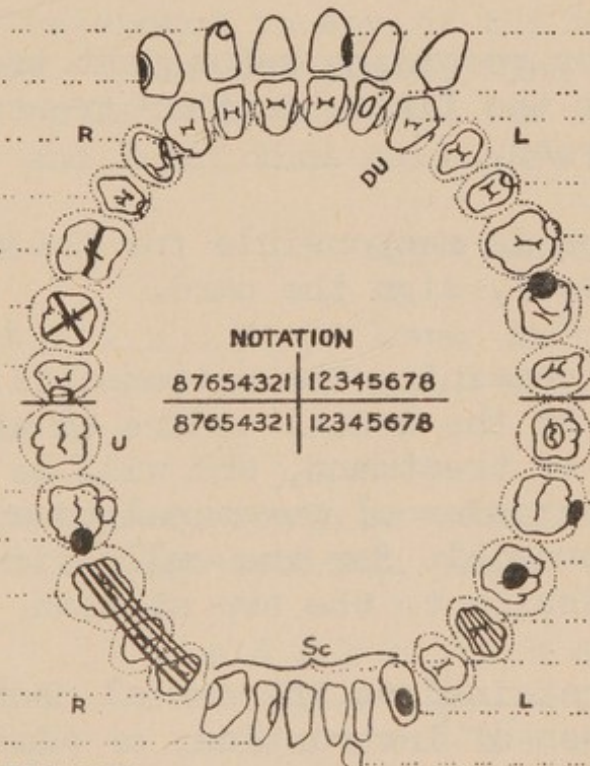
It represents the mouth as seen by the dental officer when facing the patient. Therefore, the sides of the chart marked "R" and "L" are the patient's right and left teeth.



When filled in, the chart shows at a glance

- (a) the number and condition of the teeth present
- (b) the number and position of missing teeth
- (c) existing restorations
- (d) extent of dental caries
- (e) details of artificial dentures worn
- (f) any abnormalities.

### SPECIMEN CHART COMPLETED.

<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">2 lab. (cavity)...</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">3 d. restoration</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">4 o.m. (cavity)...</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">5 o.l. (cavity)...</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">6 missing tooth...</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">7 unrepairable tooth...</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">8 o.d. (cavity)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">8 unerupted tooth...</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">7 l. (cavity)...</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">7 o.m. A.C.R.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">6.5.4 bridge*</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">3 d. (cavity)</div> <div style="border: 1px solid black; padding: 2px;">2 m. (cavity)</div>	 <div style="margin-top: 10px;"> <p><b>NOTATION</b></p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px;">87654321</td> <td style="padding: 2px;">12345678</td> </tr> <tr> <td style="padding: 2px;">87654321</td> <td style="padding: 2px;">12345678</td> </tr> </table> </div>	87654321	12345678	87654321	12345678	<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">1 d. S.R.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">2 l. P.X.L.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">3 { deciduous tooth persists permanent tooth unerupted</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">5 o. b. (cavity)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">6 b. (cavity)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">7 o.m. A.R.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">8 O. Rt. Dr. (OX PARA)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">7 b. G.P.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">6 o Cu.R.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">5 crown</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">321   123. Sc.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">3 lab. C.R.</div> <div style="border: 1px solid black; padding: 2px;">Supernumerary tooth between 1.2.</div>
87654321	12345678					
87654321	12345678					

**REMARKS**

ORAL HYGIENE = *Good*

Condition of mouth

## SECTION III

## DENTAL HISTORY CARD (A.F.I-5033)

### Part 1

The dental condition of each recruit on joining his depot or unit is accurately recorded on Part 1 of his Dental History Card (A.F.I.5033). Part 1 forms a permanent record of the individual's dental condition on first examination and no subsequent alterations will be made thereon.



The headings of the card will be completed in ink, (with the exception of the "Rank" and "Squadron, Battery or Company", which should be in pencil). Block letters will be used and the surname followed by the initials. Only those abbreviations authorised in the Field Service Pocket Book, Part 1, will be used for "Unit".

## Part 2

On completion of the first examination, the dental condition as shown in Part 1 is copied immediately on the chart in Part 2.

Part 2 is used for recording subsequent treatment and, at all examinations after the first, further treatment required will be indicated thereon.

The dental officer is responsible for the accuracy of all entries and will, himself, sign the card.

The card, though remaining the responsibility of O.C. unit will normally be kept at the dental centre at which personnel attend for inspection or treatment, and will be filed systematically. On transfer of personnel to another station, O.C. unit will be responsible for the collection of the cards and for onward transmission to the new station.

A.Fs.I.5033 are retained at the dental centre for personnel undergoing short courses of instruction, or admission to hospital, etc., under 21 days.

On promotion to commissioned rank, discharge, transfer to Army Reserve, desertion or death, O.C. unit will obtain A.F.I.5033 and forward it to the O. i/c Records concerned. (K.R. refers).

To enable Os. i/c dental centres to check A.Fs.I.5033 at periodic intervals, nominal rolls of all units will be satisfactorily maintained by reference to the Part II/III Orders of the units concerned.



## Abbreviations, Signs and Symbols For Recording Dental Examinations

### Notation by Numbers:-

#### Permanent Teeth

A notation by numbers, thus:-

8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8
<hr/>																
8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8

is used for easy reference to any of the thirty-two permanent teeth on the chart. The horizontal line divides the upper from the lower teeth, whilst the vertical (or median) line divides the teeth into right and left, thus making four sections:-

upper right \_\_\_\_\_ ; upper left \_\_\_\_\_

lower right \_\_\_\_\_ ; lower left \_\_\_\_\_

#### Temporary Teeth

The twenty temporary teeth are similarly represented, except that the notation is alphabetical, thus:-

e	d	c	b	a		a	b	c	d	e
<hr/>										
e	d	c	b	a		a	b	c	d	e

When referring to teeth in only one section of the chart, that section only is indicated, thus:- 6 3 2 1 ; 4 5 7 ; c d e

When more than one section is referred to, the appropriate section is referred to, the appropriate sections are indicated thus:- 7 6 3 | 1 2 5 8 ; 5 2 | 3 4 6 ; 7 5 2 1 | 1 2 4 6

8	7	3		8	6	3	1		2	3	5	8
---	---	---	--	---	---	---	---	--	---	---	---	---

The following signs are used to denote existing dental conditions:-



Missing Tooth - A single line drawn mesio-distally through the diagram of the tooth lost.

Unerupted Tooth - The letter "U" placed against the diagram of the tooth on the side nearest the centre of the chart.

Retained Deciduous Tooth - The letter "D" placed against the diagram of the tooth on the side nearest the centre of the chart. (The letters "DU" together when a deciduous tooth persists and the corresponding permanent tooth has not erupted)

Supernumerary Tooth - A diagram drawn on the chart as nearly in the relative position and proportion as possible.

Tooth for Extraction - The letter "X" drawn through the diagram of a permanent tooth. In the case of a deciduous tooth the letter "X" is placed after "D" or "DU".

Caries - Indicated in outline on the diagram of the affected tooth in the correct position and proportion.

Sound Restoration - The outline diagram is "filled in" to show the extent and position of the restoration.

Unsound Restoration - By a further outline surrounding the restoration drawn on the diagram.

Crown - Four parallel lines drawn labio-lingually or buccolingually across the diagram of the tooth.

Bridge - Four continuous parallel lines drawn mesio-distally through the teeth bridged including abutments.

Inlay - As for restoration.

Arrested Decay - The letters "AD" placed against the diagram of the affected tooth on the side nearest the centre of the chart.



Scaling - The letters "Sc" placed against the area to be scaled or, if a general scaling is required, placed in the centre of the chart.

Oral Hygiene is shown as either "Good", "Fair" or "Neglected".

Existing Dentures are shown by notation. The material used is indicated and also whether originally provided at public or private expense. If provided at public expense, the place and date of supply is given, e.g. :-

7651	1246	Resin	
7654	2456	Vulc.	Pub. Exp. Catterick, 1 Jun 42.

Abnormalities Any conditions which cannot be shown on the chart such as discoloured teeth; abnormalities of eruption, formation or occlusion; or any pathological condition of the mouth, are indicated.

If a patient is found to require no treatment on first examination the letters "NTR" (no treatment required) are written in the first line of the treatment column.

#### ABBREVIATIONS FOR RECORDING TREATMENTS

The following abbreviations are used on Part 2 of A.F.I.5033 to indicate subsequent treatment.

##### Surfaces

mesial	-	m	lingual	-	l
distal	-	d	labial	-	lab.
occlusal	-	o	buccal	-	b
incisal	-	in			

##### Conservative Treatment

Silver Amalgam Restoration	-	A.R.
Copper Amalgam Restoration	-	Cu.A.R.
Synthetic Porcelain Cement Restoration	-	S.R.
Other Cement Restoration	-	C.R.



(Cement-lined restorations will have the letter "C" inserted between the first letters and the "R", thus - A.C.R., S.C.R., etc.)

Arrested Decay - On the diagram - by a series of dots covering the affected area. In the treatment column - by A.D. followed by the symbols for the drugs used.

Dressing - Dr. (followed by the usual symbols for the drugs or materials used).

Gutta Percha - G.P.

Crown - Crown } followed by a description of  
Inlay - Inlay } the material used.

#### Pulp and root treatment

Pulp extirpation - P.X. (followed by the method, L for local anaesthetic, etc.).

Root Dressing - Rt. Dr. (followed by the material used).

Root filling - Rt. F.

#### Prophylaxis

Scaling and Polishing - Sc.

Gum Treatment - G.T. (followed by a description of the region treated and the symbols of the drugs used).



## Extractions

### Extraction

- On the diagram - the X will have a single line drawn mesio-distally through the tooth extracted. In the treatment column - by X followed by the type of anaesthetic used.

Post-operative Treatment - P. op. T.

A patient known to be subject to recurrent haemorrhage will have this fact recorded in red ink under "Remarks".

## Anaesthetics

- |          |   |   |
|----------|---|---|
| Local    | - | L   |
| Regional | - | Reg.  |
| General  | - | The appropriate symbols or abbreviations will be used, e.g. N <sub>2</sub> O; Pent.; etc. |

## Artificial Dentures

Immediately authority is received for denture work, the number and date of the authority will be entered in the treatment column. The date on which A.F.I. 1201 is handed to the patient is similarly recorded.

The letters "P.T.C." are entered in the treatment column of the of the card to denote that all treatment preparatory to the provision of artificial dentures is completed.

The notation described above will be used followed by the abbreviation to show the type of material used and how provided.

### Materials

### Provision

Vulcanite	-	Vulc.	Public expense	-	Pub. Exp.
Synthetic resin	-	Resin	Private expense	-	Pte. Exp.
Lingual bar	-	L. bar	Repayment	-	Rpmt.
Stainless steel	-	S. S.			



The various stages of denture work are indicated thus:-

Impressions	-	Imps.
Bite	-	Bite
Try-in	-	Try
Finished denture fitted	-	Fd.

Renewals, Repairs, partial and full Dentures - are indicated thus :-

Renewal	- Ren.	partial Denture, upper	- P/
Repair	- Rep.	" " , lower	- /P
		Full Denture, upper	- F/
		" " , lower	- /F

The letters "D.T.C." are used to denote that all dental treatment, including dentures, has been completed.

#### SECTION IV      CONSUMABLE MATERIALS USED IN OPERATIVE DENTISTRY

Consumable Equipment comprises materials which are used up in carrying on the work of the dental centre.

##### Alloy, silver-tin

Is a combination of silver and tin cut into filings or shavings. The general proportions are 75% silver, 25% tin. When mixed with mercury it forms an amalgam used for the restoration of teeth.

##### Broaches, pulp canal, smooth, soft tempered

Lengths of fine steel wire for conveying dressings to pulp canals.

##### Brushes, bristle, mounted, straight, cup-shaped and disc-shaped..

Small brushes, for polishing the natural teeth or metallic restorations.



Burs, cavity, for straight and No. 2 R.A., round, inverted cone, and fissure, various sizes.

Small cutting drills for preparing cavities.

Carborundum points, mounted, for straight and No. 2 R.A. handpieces, various shapes.

Small hard carborundum stones mounted on mandrels for preparing cavities or polishing restorations.

Carborundum wheels, unmounted

Similar to points but wheel-shaped and not fixed to a mandrel. They are fitted as and when required.

Cement, oxyphosphate of zinc

The powder is principally zinc oxide; the liquid mainly phosphoric acid. For lining restorations and cementing crowns and bridges.

Cement, oxyphosphate of copper (Ames)

The powder is a black copper compound; the liquid mainly phosphoric acid. For restorations in temporary teeth and fragile permanent teeth and for fixation of dental splints.

Cement, synthetic, porcelain

The powder is mainly crystal quartz and kaolin (fine china clay); the liquid largely phosphoric acid. For restorations which match the shade of the natural tooth.

Creta-Gallica Pulverata - (French Chalk)

Used for preserving rubber parts of dental instruments and anaesthetic apparatus. Also for dusting plaster of Paris models after casting.



Cleansers, pulp canal, barbed, fine and assorted

Barbed metal broaches for removing the dental pulp and preparing pulp canals for root filling.

Composition, impression, "Paribar"

A brown resinous material for taking dental impressions.

Composition, impression, "Zelex"

A flexible colloidal material for taking dental impressions.

Discs, Moore's type, coarse and fine cuttlefish, and coarse sandpaper,  $\frac{5}{8}$  inch and  $\frac{7}{8}$  inch diam.

Brass-centred paper discs coated with abrasive material for trimming and polishing restorations.

Drills, straight and R.A., Beutelrock's, sizes 2, 3 and 4

Small metal drills for enlarging the pulp canal.

Guttapercha, temporary stopping

The dried juice of a tree prepared in this sticks. It softens with gentle heat and hardens when cool. Used for dressings.

Guttapercha, points assorted

As above, but prepared in tapering cones of various sizes for permanent root fillings.

Hydrargyrum - (Mercury or Quicksilver)

A heavy, silver coloured metal liquid used for mixing with alloy to form an amalgam. (See also Alloy, silver-tin).



Lamps, spirit, wick for, pieces

Wick specially made for the spirit lamp.

Napkins, dental 6" x 6"

Prepared linen squares.

Needles, suture; Symond, Fish-hook

Used with silk to suture (sew) the soft tissues of the mouth.

Oil for engine

A fine oil for lubricating dental engine and handpieces.

Outfit, matrix, Ivory, bands for

Metal strips used in a special holder to "box" the tooth thus allowing the restoring material to be thoroughly condensed and shaped.

Outfit, matrix, Lennox, bands for, medium and large

As above. Note that the Ivory band has small square holes at each end to fit the lugs of the retainer, whereas the Lennox bands are not perforated.

Paper, articulating, thick and thin

A strip of carbon paper supplied in books of 12 sheets used to indicate irregularities of articulation.

Paper. glass, 20-yard roll, 3-inch wide

An abrasive material for easing and smoothing acrylic and vulcanite dentures.

Points, paper, root-canal

Specially shaped absorbent paper points for drying the pulp canal during preparation of root filling.



Plaster of Paris

Calcium sulphate in powder form, which has the property of absorbing water and setting solid. Used for making dental models.

Pumice powder, superfine (or substitute)

Pulverised volcanic lava used as an abrasive.

Reamers, root, for straight handpiece, Nos. 1, 2 and 3

Small instruments for enlarging the pulp canal prior to root filling.

Receivers, waste, Fig. 13, tops, spare for

Perforated cardboard discs fitted into the top of the receiver.

Silk, floss, waxed

Waxed thread used for cleaning between the teeth.

Strips, celluloid, clear

Thin transparent strips used as moulds and for shaping and smoothing the surfaces of restoration.

Strips, "Lightning"

Abrasive metal strips for trimming and polishing restorations.

Strips, polishing, linen, assorted

Linen strips covered with an abrasive material for trimming and polishing restorations.

Syringe, hypodermic, "Washerless", needles for (tubes of 6)  
7/8-inch and 42-mm.

Hollow needles for use with the hypodermic syringe.



Wax, cement sticks

Hard wax in stick form sometimes called model cement or sticky-wax.

Wax modelling, No. 2

Soft wax in sheet form for making dental base plates and bite blocks.

Wire, german silver, gauge 3

For making strengtheners for wax bite blocks.

Wire, ligature, soft, round, SS, SWG. 25, 30-foot coils

Fine tough wire used for wiring the upper and lower teeth together in cases of jaw fracture.

Wool, cotton rolls, sizes 2 and 3

Prepared cotton wool rolls for absorbing moisture during dental operations.

Wool, cotton, absorbent

White cotton wool used for dressings, drying cavities, etc.

SECTION V      DRUGS AND MEDICAMENTS USED IN OPERATIVE DENTISTRY

ACIDUM TANNICUM. (Tannic Acid) POISON. A yellow crystalline powder.

Use:- As a styptic to arrest haemorrhage and as an astringent.

AETHYLIS CHLORIDUM. (Ethyl Chloride), (Local), 60 c.c. tubes  
POISON.

A colourless, highly volatile liquid, contained in a syphon-like glass tube. It is applied by spraying the area to be anaesthetised. Pleasant odour. Use:- As a local surface anaesthetic. It freezes the tissues by its rapid evaporation.



ALCOHOL DEHYDRATUM. (Absolute Alcohol) POISON. A colourless liquid with a strong spirituous odour. Use:- As a dehydrant and antiseptic.

AMYLIS NITRIS. (Amyl Nitrite) POISON. A yellow, volatile liquid with an odour of ripe apples, contained in linen covered capsules. Use:- As a restorative and stimulant in cases of fainting. The fumes from the crushed capsules are inhaled.

ARGENTI NITRA. (Silver Nitrate) ( $\text{AgNO}_3$ ) POISON. Greyish coloured crystals. Use:- As a powerful caustic and must be handled with care. It stains tissues black.

CHROMII TRIOXIDUM. (Chromic Acid). ( $\text{Cr}_2\text{O}_3$ ) (50% solution) POISON. A dark brown liquid with a faint "inky" smell. Strong caustic. It must be handled with care as it burns living tissue. Use:- For the treatment of certain diseases of the gum.

FIBRE, PULP DEVITALIZING. POISON. Cotton wool impregnated with arsenious oxide ( $\text{As}_2\text{O}_3$ ) and other drugs. Use:- To devitalize pulps of teeth.

LIQUOR AMMONII AROMATICUS. (Sal Volatile). A colourless liquid with a strong aromatic odour. Use:- A stimulant in cases of fainting. Dose:- 20 to 30 drops in about one ounce of water.

LIQUOR AMMONIAE FORTIS. (Strong Ammonia solution). ( $\text{NH}_3$ ). POISON. A colourless liquid with a very strong aromatic odour. Use:- With silver nitrate in the treatment of root canals.

LIQUOR CRESOLIS SAPONATUS. (Lysol). POISON. A dark reddish, alkaline antiseptic and disinfectant fluid. It is caustic in strong solution.

LIQUOR HYDROGENII PEROXIDI. (Peroxide of Hydrogen) ( $\text{H}_2\text{O}_2$ ). A colourless, odourless liquid containing oxygen which is readily liberated on exposure to air or strong light. Slight acid taste. It should be stored in dark coloured, well-stoppered bottles. Use:- As an antiseptic, styptic and bleaching agent.



LIQUOR IODI MITIS. (Weak solution of iodine in alcohol).  
POISON.

A reddish brown fluid with a spirituous odour. Use:-  
Disinfectant, antiseptic, and astringent.

LOCAL ANAESTHETIC SOLUTION. POISON. Specially prepared  
drugs in solution which, when injected into the tissues, produce  
local numbness. Use:- For anaesthetising tissues prior to the  
extraction or filling of teeth and for minor surgical operations.

NIKETHAMIDUM. (Coramine). POISON. A yellowish oily  
liquid. Bitter pungent taste. Use:- A respiratory restorative  
in cases of collapse. Injected into the tissues with a  
hypodermic syringe (Record type).

NITROGENII MONOXIDUM. (Nitrous Oxide, Laughing Gas). ( $N_2O$ ).  
POISON.

A colourless odourless gas, condensed for use into a liquid in  
steel bottles, whence it is allowed to flow into the anaesthetic  
apparatus. Use:- As a general anaesthetic.

OLEUM CARYOPHYLLI. (Oil of Cloves). A clear straw-coloured  
oil with a strong aromatic odour. Use:- As an obtundent.

"OXPARA". POISON. An antiseptic consisting of a powder and  
a liquid. Sometimes issued under the name of "ASTO". Use:-  
As a creamy paste for root dressings and permanent root fillings.

PARAFFINUM MOLLE. A substance similar to vaseline. Use:-  
as a lubricant.

PHENOL. (Carbolic Acid). POISON. A coal-tar product. In  
pure form is colourless, solid and crystalline, with character-  
istic odour and sweetish pungent taste. Use:- Powerful  
antiseptic and caustic. It liquefies on adding 10% water and it  
turns pink on continued exposure to light.

RESIN, CARBOLIZED. POISON. A preparation containing phenol,  
chloroform and resin. It is a sweet smelling, brown, viscid  
(sticky) liquid which hardens on exposure to air and moisture.  
Use:- As an obtundent and styptic.



THYMOL. A whitish crystalline aromatic substance, made from oil of thyme and other plants. Use:- Antiseptic, obtundent and deodorant.

VARNISH, COPAL ETHER. POISON. A spirituous varnish. Use:- For coating cement restorations to make them moisture-proof.

ZINCI OXIDUM. (Zinc Oxide) ( $ZnO$ ). A white powder. Use:- Mixed with oil of cloves, as a temporary filling or as a lining to permanent restorations.

#### NOTES ON THE HANDLING OF MEDICAMENTS

The D.O.R.A. will see that all bottles are properly and clearly labelled.

On no account will unlabelled medicament bottles, except empties, be kept in a dental centre. Should a label become detached from a bottle, the matter will be reported to the dental officer who will be responsible for deciding whether the contents should be discarded, sent to the dispensary for analysis or the bottle re-labelled.

To prevent labels from becoming obliterated by drips from the bottle, always pour the contents from the side of the bottle furthest from the label.

Corks and stoppers, when removed, should not be laid down, as, not only is there is risk of their being replaced in the wrong bottles but, almost invariably, a stain is left where they have been placed.

Medicaments for daily use should be kept in the bottles specially provided for the purpose. These should be replenished from the stock bottles as necessary.

It is important that medicament bottles are so arranged that no two drugs of a similar colour are placed next to one another. The danger of taking the wrong bottle is thereby greatly reduced. Never store the iodine bottle in a place where there are metal instruments, as these will tend to rust.



## SIMPLE ANTISEPTICS IN COMMON USE

An antiseptic is a substance which prevents or arrests the growth and development of bacteria.

Those in common use in dental centres are:-

### Liquor Cresolis Saponatus (LYSOL)

For instruments - 2 parts in 100 of water  
As a mouth wash and for hands - 1 part in 200 of water

### Phenol (Carbolic Acid)

For instruments - 4 parts in 100 of water  
As a mouth wash and for hands - 1 part in 100 of water

### Liquor Hydrogenii Peroxidi (Hydrogen Peroxide) (10 Vols)

For swabbing tooth cavities or sockets - pure  
For certain gum diseases - pure  
As a mouth wash - 1 part in 30 of water

### Liquor Iodi Mitis (weak solution of Iodine)

For painting the gums before local injections, extractions, scalings and surgical operations.

## SECTION VI THE CLEANING AND STERILIZATION OF DENTAL SURGICAL INSTRUMENTS

Sterilization is the destruction of all harmful bacteris (microbes or germs) by means of heat or chemicals.

Bacteria are small organisms, invisible to the naked eye and only seen through a microscope. They cause most of the infections with which dentistry is concerned.

Mechanical cleanliness. An instrument is mechanically clean when it is free from all matter such as blood, debris, rust stains etc.



Surgical cleanliness or sterility. An instrument is surgically clean or sterilized when, in addition to being mechanically clean, it is free from all bacteria.

The terms "aseptic" and "antiseptic" can best be explained thus:-

Aseptic and Antiseptic. It is necessary to sterilize a pair of extracting forceps. The instruments are thoroughly cleaned with a brush, using soap and cold water, special care being taken to clean the serrations and joints. It is now mechanically clean. It is then placed in boiling water for 20 minutes, which destroys all the bacteria and it is now aseptic, that is, free from micro-organisms. Presuming it is placed on a table, exposed to the air and dust, other bacteria may find their way on to the forceps. To avoid this, it is placed in a solution of 2 in 100 Lysol or 4 in 100 Carbolic Acid, in which fluid germs normally cannot live. The forceps are now aseptic and in an antiseptic solution. They are free from bacteria and in such a position that no other bacteria can reach them alive.

Rules for sterilization of dental instruments by boiling in water

- (a) Boil water containing a 1% solution of bicarbonate of soda for 15 minutes before starting sterilization. The bicarbonate of soda prevents instruments from rusting.
- (b) Scrub the instruments with soap and cold water with a brush kept in an antiseptic solution such as 1% Lysol.
- (c) Place the instruments in the sterilizer containing boiling water for 20 minutes.
- (d) At the end of the boiling period remove the instruments, using Cheatele forceps for this purpose, and place in the antiseptic solution ready for use.



If the instruments are not required for immediate use, they should be thoroughly dried with a clean towel on removal from the sterilizer and put away in the aseptic cabinet, the trays of which should always be kept scrupulously clean.

- (e) Instruments not recently sterilized must be re-sterilized before use.
- (f) Never use any form of soda when sterilizing aluminium handled instruments.
- (g) The sterilizer must be emptied, cleaned and dried at the end of each day.
- (h) NEVER ALLOW THE STERILIZER TO RUN DRY.

#### Sterilization of special items of dental equipment

Scalpels and lancets should never be boiled in water as this injures the cutting edges. They should be sterilized by immersion, after cleaning, in a tray of pure Lysol for at least 4 hours before use. They should rest on a layer of gauze or lint and all sharp edges and points must be carefully protected.

Engine burs, pulp canal cleansers and broaches should be placed immediately after use in a solution of 1% Lysol and then cleaned by vigorous brushing with a wire burr brush before being placed in the sterilizer.

Hypodermic Syringes; after use, dismantle, wipe off lubricant etc., and place in sterilizer. Remove at end of the boiling period, lubricate by dipping the semi-vulcanized plunger end in sterile vaseline, re-assemble and place complete in a Bardet sterilizer containing only sufficient sterilizing solution to cover the needle.

Sterile vaseline for the lubrication of surgical instruments is prepared thus:-

1. Squeeze the required amount of vaseline out of the tube into a clean small glass jar, such as an old shaving cream jar.



2. Cover the glass jar with a rustless cover.
3. Twist a length of strong stainless steel wire around the neck of the jar. Twist the two free ends to make a hook.
4. Hang the glass jar inside the sterilizer just above the boiling water.
5. Allow the jar to remain inside the sterilizer for twenty minutes. Remove the jar and allow it to cool. The vaseline is now ready for use. In order to maintain its sterility the vaseline must be sterilized each time after use.

Mouth mirrors; boil as for instruments, but do not leave in a strong antiseptic solution longer than necessary as the mirror soon becomes damaged.

Saliva ejectors; after use, water should be drawn through the ejector; it should then be scrubbed free from adherent saliva; boiled and placed in the antiseptic solution. Ensure that clean water is again drawn through the ejector before it is placed in the patient's mouth.

Handpieces should not be boiled in water. Their complicated mechanism, which must be oiled, makes their sterilization a difficult problem.

Impression Trays; remove all traces of impression material either by dry or wet heat, then place in sterilizer for 20 minutes. Trays should be stored free from dust and possible contaminations.

"Paribar" Impression compound may be sterilized by immersion for 10 minutes in water at a temperature of 140 degrees F.

#### Other Boiling Liquids for Sterilization

Various oily solutions are being tried out as a possible improvement on water as a boiling medium. It is claimed that these oily preparations have such advantages as:-



- (i) a shorter boiling time.
- (ii) preservation of sharpness of cutting edge.
- (iii) have no rusty action on metal.
- (iv) leave a protective deposit on instruments.
- (v) ensure oiling of mechanism and joints.

(This would be a particular advantage in the case of handpieces. See "Handpieces" above)

## SECTION VII

## POST-EXTRACTION HAEMORRHAGE

Haemorrhage means an escape of blood from the vessels, such as follows a dental extraction.

There are three varieties of post-extraction bleedings:-

- (a) Primary Haemorrhage - occurs at the time of operation and usually ceases within thirty minutes by the formation of a clot which plugs the torn vessels. After stoppage, the clot may be loosened, injured or forced out, causing -
- (b) Recurrent Haemorrhage - usually within twenty-four hours.
- (c) Secondary Haemorrhage - occurs at any time after twenty-four hours, but seldom before eight days from the time of operation. Its chief cause is septic infection which breaks down the blood clot.

### Directions for Emergency Treatment of Post-Extraction Haemorrhage by D.O.R.As. (pending the arrival of the Dental Officer)

- (a) Send at once for the dental officer - if he is not available, send for the orderly medical officer.
- (b) Re-assure the patient to allay his anxiety.



- (c) Seat the patient upright on a chair.
- (d) Ask him to show with his finger where the extraction was.
- (e) Have a quick look to get an idea of the size of the socket - note if there are teeth on either side of it and in the opposing jaw.
- (f) Quickly take one or more cotton rolls, depending on the size of the socket and the presence of teeth on either side and above it; wrap a dental napkin tightly round the rolls and secure with floss silk (like string round a parcel).
- (g) Place this pack (using tweezers) over the socket and get the patient to bite firmly into it and keep closed.
- (h) Quickly wash your hands; switch on the sterilizer and hot water; make one or two more packs.
- (j) Wait five minutes; ask the patient to open; carefully and slowly remove pack and note the effect.
- (k) If bleeding has almost stopped, or is much reduced, take another pack, re-apply, ask patient to bite into it and remain so till D.O. comes.
- (l) If little effect on bleeding, make patient rinse mouth with water as hot as can be borne, or with very cold water, but never with luke warm water.
- (m) Meantime, take a small cotton-roll; cut it in half; dip one portion in hydrogen peroxide; squeeze one end to make it cone shaped; dip lightly in tannic acid; insert into socket, pushing well down with tweezers; cover with the second half of the roll.
- (n) Place a pack over the socket and get the patient to bite firmly into it.
- (o) Await arrival of D.O.



- (p) Tell D.O. exactly what you put into socket and how many pieces of roll.

## SECTION VIII

## THE CUSTODY AND ISSUE OF POISONS

The essential points are:-

- (1) Poisons will invariably be kept under lock and key in a cupboard set aside for the purpose.
- (2) They will not be stored in excess of normal requirements.
- (3) The bottles must be clearly marked "POISON" and the contents clearly shown.
- (4) The bottles containing poisons should be easily distinguishable by touch.
- (5) Every dental centre has a properly built poison cupboard distinctly marked "Poisons", the key of which will be in the personal possession of the dental officer.

## Procedure with regard to the Safeguarding of Local Anaesthetic Solution

A copy of a War Office Letter extracts from which appear below, will be affixed to the inner side of the door of each poison cupboard.

- "(1) Only one properly labelled bottle containing any particular kind of local anaesthetic will be put into use at one time.
- (ii) When the contents of the bottle have been used up the label will at once be removed and the bottle returned to the dispensary or store. In no circumstances will an empty local anaesthetic bottle again be taken into use for any purpose or be retained in the dental centre.



- (iii) The dental officer will not use the contents of any rubber capped local anaesthetic bottle from which the wire ring has been removed or of which the cap has been interfered with in any way.
- (iv) The dental officer will in all cases himself fill the hypodermic syringe prior to injection.
- (v) All other bottles in use in the dental centre will be clearly labelled as to their contents."

## SECTION IX

## SURGERY ECONOMY

### Economy in time:-

Instruments and items of dental equipment should be laid out in the most convenient position for quick and efficient work.

Most dental officers have a particular layout for each instrument so that it is ready to hand. The DORA should rapidly learn how each dental officer habitually arranges his instruments and equipment and should replace them in that order each time after use.

The bracket table should be set out only with those instruments which are in frequent use.

Avoid having a large number of burs of each type and size set out at one time. With some partly worn, it is difficult for the dental officer readily to find the sharp ones.

The D.O.R.A. must have a clean and tidy appearance. As a rule, he is the first person to come in contact with the patient and, by his courteous and pleasantly efficient bearing can do much to reassure the patient and so conserve the valuable time of the dental officer.

### Economy in materials:-

The greatest care must be taken to keep in good condition all instruments and items of equipment used in the dental centre.



All instruments etc., are more efficient and will last much longer if properly cared for.

### Gas Apparatus

Taps must be turned off immediately after use. All spare rubber parts of the apparatus should be carefully stored away from light in a clean, cool dry place, after dusting with French chalk.

### Filling Materials

Avoid waste as much as possible. Before mixing, ascertain from the dental officer how much is required. After cements have been mixed, any surplus uncontaminated powder should be replaced in the bottle. Bottles containing cement liquids must never be left unstoppered and the liquid in the bottle must not be soiled with powder.

### Plaster of Paris

Do not mix up more than is required for the particular work in hand. Store in a covered tin and keep in a warm, dry place.

Cotton Wool, cotton rolls and napkins should be used only for the purposes for which they are intended. They should at all times be protected from dust.

Overalls, towels, cloths etc., should be used for their proper purposes only and as economically as is consistent with cleanliness.

Gas and Spirit Lamps and Electric Lights must not be left burning when not required. The flame of gas burners should be turned down to the lowest point consistent with requirements.



## SECTION X

### CARE, PREPARATION AND CLEANLINESS OF DENTAL OPERATING ROOM AND ANCILLARY OFFICES

Whilst it is impossible to lay down hard and fast rules regarding every minor detail in the care etc., of the dental operating room and ancillary offices, D.O.R.As. should develop a routine system to be carried out each day. A D.O.R.A. should take a personal pride in the appearance of the dental centre and so impress the patients by its sparkling cleanliness and general atmosphere of neatness and order.

Before the dental officer starts treatment, the following routine should be carried out:-

- (1) Sweep out and dust the ancillary offices each morning. Set aside two days per week for scrubbing out all offices. (Avoid sweeping out the surgery in the morning).
- (2) Clean all brass and chrome finished metal.
- (3) Thoroughly air the premises.
- (4) Check up that no dust remains.
- (5) Ensure that all equipment is in working order and that instruments, etc., are laid out in the particular order preferred by the dental officer.
- (6) Fill and start the sterilizer.
- (7) Attend to the linen supply. Have a clean gown ready for the dental officer.
- (8) Clean the wash hand basin. (This may require to be cleaned many times during the day).
- (9) Have soap, nail brush and towel at the wash basin.
- (10) Check up on patients in waiting room.
- (11) Assemble the Dental History Cards for the days appointments.



- (12) Lay out correspondence which requires attention.

Before the afternoon session:-

- (1) Sterilize and rearrange all used instruments.
- (2) Tidy the surgery, desk and waiting room.
- (3) Check up on afternoon's patients.

At the conclusion of each day's work:-

- (1) Sterilize instruments, etc., and place under cover to avoid possible contamination.
- (2) Drain and clean the sterilizer.
- (3) Thoroughly clean and dust the surgery, empty and clean the spittoon and waste receptacles. All refuse should be burnt if possible.

N.B. The spittoon must be cleaned after each patient).

- (4) Raise the chair to its full extent, remove the seat and dust all parts of the chair thoroughly.
- (5) Wipe over all glass shelves with methylated spirits.
- (6) Replace all instruments, etc., in cabinet, bracket table, drawer or appropriate place.
- (7) Tidy waiting room, prosthetic room, etc., ready for cleaning in the morning.
- (8) Deal with the day's documentation and correspondence.
- (9) See that all gas, water and power electricity is turned off.
- (10) Take security precautions, put out lights, close and lock up premises.



## SECTION XI

## ARMY BOOKS MAINTAINED IN ARMY DENTAL CENTRES

Army Book 97 - Postage Book:- is a register of all outward mail despatched from a military office. It contains a record of the registered number of the letter or memorandum, the date of despatch, the addressee and the cost of postage. Details are recorded in the book of cash received, expended and remaining. From this information data is obtained for completing Army Form P.1940, which is rendered each month (last Friday) to the Imprest Holder, in order to account for cash expenditure.

Army Book 193 - Register of Correspondence:- is a complete record of all letters and memoranda received at or emanating from a military office. It is compiled in accordance with R.A.M.C and R.A.D.C. Standing Orders.

Army Book 468 - Dental Appliance Book:- is a complete record of prosthetic work. Immediately approval is given for provision of renewal or repair, the particulars of the patient, authority etc., are entered in the appropriate columns.

As the work progresses through the various stages, details are entered under the various headings in the book.

The 'Remarks' column is utilised to indicate such particulars as transfers, etc.

Army Book 469 - Dental Treatment Book:- is a complete and detailed record of all treatment carried out at a dental centre.

On the first attendance for treatment, the patient is allotted a reference number. This, together with the personal particulars, are entered in the alphabetical index. The date of attendance is recorded in the 'Date' column of the index and particulars of treatment in the body of the book under the appropriate columns, using the allotted reference number in Column 1.

For convenience, the body of the book may be proportioned off into separate sections to segregate the various categories as required, in order to facilitate the compilation of the Monthly Dental Summary.



In the event of a dental centre being closed, A.Bs. 468 and 469 will be sent to the administrative dental officer concerned for reference. If the centre is subsequently re-opened, these books will be returned.

Army Book 489 - Dental Laboratory Book:- is a record of all prosthetic work carried out in a dental laboratory.

## SECTION XII

### ATTENDANCE FOR DENTAL TREATMENT

The attendance of soldiers at a dental centre is governed by K. Regs., 1940, paras. 1426 and 1427. The C.O. of the soldier's unit or depot will ensure that all recruits and enlisted boys report to the dental centre within seven days of their joining the Army.

The O.C. Unit will also ensure that personnel, who have been detailed for subsequent visits to the dental centre by the dental officer (on A.F.I.5025), attend on the dates and times specified thereon.

The dental officer will give adequate notice for attendance to the O.C. unit, who will request that new appointments be made for men who cannot attend on the date stated.

A nominal roll of all men in each unit should be maintained at the dental centre where the men normally attend for treatment. These rolls will be kept up to date by a periodic check with unit rolls and amendments, using Part II and Part III Orders for this purpose.

From these rolls a list of men under treatment can be prepared and requests for attendance at the dental centre submitted.

## SECTION XIII

### COMPILATION AND DISPOSAL OF DENTAL RETURNS

#### 1. WEEKLY DENTAL STATE

Army Form I.5028

At present in abeyance.



## 2. MONTHLY DENTAL SUMMARY

Army Form I.5034

This gives a summary of all work carried out at a dental centre during the month.

### COMPILATION:-

There are additional columns which indicate such items as the number of personnel for whose dental treatment the dental officer is responsible, the number of Dental History Cards held, and the establishment and effective strength of the unit.

The headings are self-explanatory.

In accordance with current instructions the various categories of entitled personnel treated are shown under separate headings.

### DISPOSAL:-

Os. i/c Dental Centres send completed A.Fs.I.5034 through the administrative dental officer to the D.D.M.S. of the Command, and a copy to the A.D.M.S. where one exists. The D.D.M.S. compiles a consolidated return for all centres in the Command and despatches it to reach the Under Secretary of State, The War Office (A.M.D.6), by the 7th of the month following that to which it refers.

### A.F.B.158 (NOMINAL ROLL OF OFFICERS)

This form consists of three parts.

PART A Is a record of every post authorised by the unit's full War Establishment together with the details of officers actually filling (or posted to fill) vacancies and of officers posted in excess of War Establishment.



PART B Is a record of officers, excluding those attached or temporarily attached, who have actually quitted since the date of the last return

PART C Is a record of officers who are held on the strength of another unit but who are attached or temporarily attached to the unit making the return.

The return is compiled up to 12.00 hours on the 20th day of each month, and will be despatched before 17.00 hours on that day to the addressees enumerated below.

In addition, a certificate will be added to A.F.B.158 at the foot of Part 'C', immediately above the signature of the officer responsible for the correctness of the return, as follows:-

"I certify that all known casualties have been published in Part II/III Orders (Officers). Vide W.O.L. 100/Gen/2308 (A.G.1) (Officers R.) dated 4 may 48."

Notes on the compilation of the details required on this form are printed on the cover of the pad of forms.

#### DISTRIBUTION

1. Two copies - Under Secretary of State, The War Office, (A.M.D.6), London, S.W.1.
2. One copy - Command Headquarters.
3. One copy - District /Area/Divisional Headquarters.
4. One copy - File.

#### UNIT STRENGTH RETURN - R.A.D.C. PERSONNEL

The O. i/c each dental unit will forward monthly to the Administrative officer concerned, a nominal roll of all personnel - (Officers/D.Ts/D.O.R.As/W.R.A.C.) serving with the unit and counting against the War Establishment.



Particulars required:-

<u>No.</u>	<u>Rank</u>	<u>Name</u>	<u>Med. Cat.</u>	<u>Trade</u> <u>Classification</u>	<u>Age and Servi.</u> <u>Group</u>
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This return is completed up to 23.59 hours on the 26th of each month and despatched not later than 12.000 hours next day.

#### SECTION XIV

#### OFFICIAL SECRETS ACT

The Official Secrets Act is fully dealt with in K.R., 1940, paras. 523, 523A and Appendix XXX.

All ranks will observe the strictest secrecy with regard to all official matters dealt with in an office, and any deviation from this rule will be regarded as a breach of discipline.

A copy of the Official Secrets Act should be posted in the office and the signatures of all concerned will be obtained on Army Form A/5120, Declaration B., that they fully understand the more important provisions of this Act.

#### SECTION XV

#### PROHIBITION OF THE PRACTICE OF DENTISTRY BY DENTAL TECHNICIANS, DENTAL HYGIENISTS AND DENTAL OPERATING ROOM ASSISTANTS

Dental technicians and dental operating room assistants are forbidden to practice dentistry in any form whatsoever, except as laid down in Standing Orders for R.A.M.C. and R.A.D.C.

Dental hygienists are forbidden to practice any form of dentistry other than that for which they have been trained, namely, the scaling of teeth and the pre-operative and post-operative treatment of patients as directed by a dental officer.

In no circumstances are dental technicians, dental operating room assistants or dental hygienists permitted to receive gratuities from patients.



## SECTION XVI

### OFFICE REQUISITES - INDENTS

Two separate Army Books are used when indenting for office requisites.

- (i) A.B. 222 for Army Books, Army Forms and Publications.
- (ii) A.B. 229 for stationery.

The books are submitted direct to the D.D.O.S. (P. & S. Section) at Command Headquarters. The items are supplied through the normal supply channels and the indent books returned with an explanatory note against any items short delivered or not supplied.

Issues will only be made against demand in the appropriate indent book.

The scales of stationery are shown on the inside of A.B. 229.

## TYPEWRITERS

Typewriters are obtained by indenting on A.F.G.982E accompanied by a full explanation for their necessity, sent to the D.D.O.S. (P. & S. Section) at Command Headquarters who arranges the supply through His Majesty's Stationery Office.

Repairs to typewriters are undertaken by the R.A.O.C. on indent (A.F.G.1045).

Accounting: Typewriters held are accounted for on the last page of the Dental Equipment Ledger. The serial numbers and makes of the typewriters are shown in the ledger. The base board and cover should be shown separately.

## SECTION XVII

### SUPPLY AND REPLACEMENT OF BARRACK STORES AND EQUIPMENT

#### 1. Supply of barrack equipment

When the establishment of a new dental unit is authorised, the O i/c Barracks is notified by H.Q. District concerned.



The O i/c Barracks then consults the Administrative Dental Officer regarding the supply of accommodation stores.

The authorised scale of accommodation stores is published in Barrack and Hospital Furniture Part 1 - Barrack Schedules, one of which deals exclusively with dental centres.

The necessary equipment is issued on loan and is accounted for in A.B.533 (Inventory Book). This is checked periodically by a representative of the O i/c Barracks.

## 2. Replacement of Unserviceable Barrack Equipment

Unserviceable barrack equipment may be replaced monthly by the submission of Army Form F.765 incorporating a certificate of fair wear and tear. The form, together with the unserviceable articles will be taken to the Barrack Inventory Accountant who will make the necessary exchange.

Articles which have become unserviceable other than through fair wear and tear will be dealt with as follows:-

- (a) Due to neglect of the unit - The B.I.A. is notified to this effect on Army Form F.765 at the time of the exchange. The B.I.A. will submit A.F.P.1956 to the unit and when credit has been secured, an endorsed copy of this form is sent by the Paymaster concerned to the B.I.A. to support his ledger account.
- (b) By an individual - Army Form P.1956 is rendered by the B.I.A. to the O.C. Unit, who will make arrangements for the cost to be debited against the soldier's account.

## 3. Loss of Barrack Equipment

In the event of barrack equipment being lost a court of inquiry will be held. Three copies of Army Form G.998 will be prepared by the unit and these will be forwarded to the O i/c Barracks for insertion of the current rate and return to unit. The findings of the court of inquiry, together with three copies of A.F.G.998 will be forwarded to H.Q. District/Garrison for



decision of responsibility. If responsibility devolves on the public a free replacement is effected, if responsibility devolves on the unit then adjustment is made by A.F.P.1956 in the normal manner.

## SECTION XVIII

### SCALES OF AUTHORISED DENTAL EQUIPMENT AND STORES

All medical equipment, which includes dental equipment, authorised for units in the army is listed and catalogued in the Priced List of Medical Equipment (P.L.M.E.). The items are arranged in Sections according to the type of equipment. Sections 5a and 5b deal with dental equipment. When items are demanded on indents the section, catalogue number and description as shown in the P.L.M.E. are quoted invariably.

Authorised scale. Each medical or dental unit has an authorised scale of equipment laid down in Regs. M.S.A. The scale of dental equipment is contained in Appendix 34 and 34a, divided into two parts:- (a) Consumable (b) Non-consumable.

Consumable equipment comprised articles and materials which are expended in carrying out dental treatment. The expenditure of all such items must be accounted for in accordance with regulations.

Non-consumable equipment comprises articles such as instruments and apparatus which are not expended but become unserviceable through use. These articles cannot be thrown away when they become unserviceable as they must be accounted for and replaced in accordance with current regulations.

## SECTION XIX

### THE SYSTEM OF INDENTING FOR DENTAL EQUIPMENT

The instructions dealing with the supply of medical equipment are contained in Regulations for the Medical Services of the Army.

The preparation of an indent. Indents are prepared on A.F.I. 1209 (Indent or Issue and receipt voucher). Each complete indent will bear a serial number, shown on each sheet of the indent. The total number of sheets and the sheet .



number will be shown. All items in the indent will be inserted under their appropriate sections, a separate sheet being used for each section

Column 1. Each item demanded will be serially numbered, followed by the catalogue number as shown in the P.L.M.E.

Column 2. The items are entered in alphabetical order, by sections, using the nomenclature as shown in the P.L.M.E.

Column 3. The number of items on charge plus those previously indented for but not yet received will be entered, in this column

Column 4. The average monthly consumption over the previous six months will be shown. In the case of newly opened centres, the scale based on Appendix 34 Regs. M.S.A. will be used.

Column 5. The present demand will be entered.

Column 6. This is for use by the consignor and should therefore be left blank.

Column 7. Relevant remarks such as the reasons for special items or quantities demanded, certificates of fair wear and tear, or stating compliance with regulations, will be entered.

Indents in respect of electrical equipment. For supply or repair, the following particulars will be included:- maker's name and serial number of the appliance; current, voltage and cycles; date of supply. In the case of a repair, the type of repair if known.

#### Sources of supply of medical equipment

Medical equipment may be supplied from: (a) War Office contractors, (b) Army Medical Stores, (c) Command Medical Stores (d) Local purchase.



## SUBMISSION OF INDENTS

Unit indents will be submitted monthly, on such dates as may be arranged by D.Ds M.S. of Commands.

### For items on the authorised scale and stocked by Command Medical Stores

Three copies of A.F.I.1209 are prepared, two being sent to the A.D.M.S. for approval. The A.D.M.S. forwards one approved copy to the O.C., Command Medical Stores for supply. One copy is kept by the unit as an office reference copy. In the case of small units with small indents, the A.D.M.S. may, at his discretion pass the indent to the nearest hospital or Reception Station for supply.

### For items on the authorised scale not stocked by the C.M.S.

Six copies are prepared. One is kept as an office copy. Five copies are forwarded to the A.D.M.S. who forwards them after scrutiny to the D.D.M.S. who in turn forwards them to the War Office (A.M.D.3). The W.O. acknowledges the receipt of the indent direct to the unit, giving the indent a "War Office Issuing Number". This number will be quoted in all subsequent correspondence regarding the indent.

### For items not authorised or in excess of scale

Seven copies are prepared, one being kept as an office copy. Six copies accompanied by a full explanation as to the necessity for the supply, are sent to the A.D.M.S. for scrutiny and onward transmission to the D.D.M.S. who will forward them to the W.O. with his recommendations. If the supply is approved, the W.O. will acknowledge the indent direct to the unit and give it a "War Office Issuing Number". The number will be quoted in any subsequent correspondence.

### For items for which special arrangements exist (e.g., Nitrous Oxide Gas and Oxygen)

Three copies are prepared, one being retained as the office copy. Two copies are sent to the A.D.M.S. for approval.



After approval the forms are forwarded by him to the BRITISH OXYGEN COMPANY. The B.O.C. will supply the items direct to the unit, together with two copies of A.F.P.1922 (Summary of Bill.). The reverse of both of the forms is signed by the O i/c unit vouching for the receipt, in good condition, of the stores, who then forwards one copy to the A.D.M.S. who arranges payment. The other copy is retained as a receipt voucher.

URGENT INDENTS: which should rarely be necessary, may be submitted at any time, but will be accompanied by an explanation of the circumstances which rendered the items necessary. In specially urgent circumstances, units may pass indents by any route appropriate to the urgency, direct to the C.M.S. or the W.O. (A.M.D.3) as applicable. In such cases a copy of the indent clearly marked "Duplicate" will be submitted through the usual channels for covering approval, together with a statement of the circumstances which rendered the action necessary.

#### LOCAL PURCHASE (See Regs. M.S.A.)

In special circumstances, including urgency, certain items of medical stores may be purchased locally, up to a maximum of £5, with the prior sanction of the A.D.M.S. Such local purchases will be accounted for in the normal manner and will be certified as having been absolutely necessary and obtained on the best and cheapest terms.

On receipt of the stores, two blank A.Fs.P.1922 are handed to the firm who enter on the forms the charges. The Dental Officer, as the accounting officer, signs the reverse of both forms to vouch for the receipt of the stores in good condition. One copy of the form is then forwarded to the A.D.M.S. who arranges payment. The other copy is retained as a receipt voucher for bringing the items on charge.

#### SECTION XX PACKING AND DESPATCH OF MODELS AND PROSTHETIC WORK

Always bear in mind when packing, that parcels transmitted through the post are liable to have very rough handling.



1. Packing boxes of various sizes are officially supplied for the purpose; select one of suitable size.
2. Ensure that the appliance number is clearly indicated on the side of each model.
3. Wrap up each article in clean paper.
4. Never wrap up models in occlusion.
5. Repairs with any detached fragments of teeth are placed in an envelope clearly marked with patient's name and appliance number before wrapping.
6. Pack each article separately, with ample packing material between each and the sides of the box. Newspaper, wood shavings or tow serve admirably for this purpose. (Cotton wool or cotton rolls must not be used).
7. Enclose the appropriate Army Form I.5026 on top of the wrapping under the flap of the box.
8. Any special enclosures such as detached teeth, etc., are put in an envelope which clearly indicated the patient's name and appliance number of the case; this envelope must be pinned to the appropriate Army Form I.5026.
9. Old dentures returned to the laboratory for dismantling are put in an envelope bearing the name of the patient; appliance and laboratory serial numbers of the case; and marked "for dismantling".
10. Affix the label on the top right hand corner of the box and in addition to the address show the appliance numbers of the contained work.
11. Tie the string securely.



SECTION XXI    NOMENCLATURE IN COMMON USE IN THE DENTAL SURGERY

<u>Abscess</u>	A localised infection or inflammation containing pus.
<u>Anaesthetic, General</u>	A drug which produces insensibility to pain by rendering the patient unconscious.
<u>Anaesthetic, Local</u>	A drug which when injected or applied locally causes insensibility to pain in the immediate vicinity of the application.
<u>Anodyne</u>	A drug employed for the relief of pain. There are two varieties; general and local.
<u>Antiseptic</u>	Drugs which prevent putrefaction by arresting growth of, or destroying, micro organisms.
<u>Asepsis</u>	The state of being free from harmful bacteria.
<u>Astringent</u>	A drug which causes contraction of the soft tissues and blood vessels and so lessens exudation.
<u>Caustic</u>	A drug which burns or destroys the surface of living tissues.
<u>Dehydrant</u>	A drug which absorbs moisture.
<u>Deodorant</u>	A drug which masks undesirable or offensive odours.
<u>Disinfectant</u>	An agent which kills germs.
<u>Obtundent</u>	A drug which lessens sensibility to pain by local application.
<u>Pus</u>	A yellowish creamy fluid exuded from an abscess or inflamed area.



Sepsis

The condition of being infectedd by bacteria.

Styptic or Haemostatic

A drug used to arrest bleeding.

## SECTION XXII

## ANATOMY AND ATTACHMENT OF TEETH

A tooth is composed of hard and soft tissues.

### Hard Tissues:-

Enamel - covers the crown and extends to be neck.

Dentine - forms the main body of the tooth and encloses the pulp chamber and root canals.

Cementum - covers the root.

### Soft Tissues:-

The Pulp - composed of minute blood vessels and nerve fibres. It is contained in the pulp chamber and root canals.

### Method of Attachment:-

Teeth are attached to the jaws by implantation in the bony socket. Between the root and bone of the jaw there is a thin fibrous tissue called periodontal membrane, which acts as a buffer.

## SECTION XXIII

## GENERAL PRINCIPLES OF ORAL HYGIENE

A clean and healthy mouth is of the greatest importance to general health. Without good teeth, food cannot be properly masticated, the digestion becomes impaired and ill-health follows. Further, an unclean mouth, besides causing infection and inflammation of the gums and surrounding tissues, is an ideal breeding ground for bacteria, the poisons from which are absorbed and cause serious ailments



The prevention of caries and the maintenance of oral health depend largely on keeping the teeth and mouth scrupulously clean by the regular and intelligent use of the tooth brush.

The teeth should be well brushed after every meal; night brushing being particularly important. They should not be brushed from side to side - this is wrong - the movement should be downwards for the upper jaw and upwards for the lower jaw so as not to brush the gum away from the necks of the teeth.

Should tooth paste or powder not be available common salt makes an excellent substitute.

#### SECTION XXIV

#### PREPARATION OF EQUIPMENT AND PATIENT FOR GENERAL ANAESTHESIA

##### 1. Equipment required for use in General Anaesthesia

<u>Apparatus</u>	<u>Equipment</u>
Anaesthetic Apparatus	Tooth forceps
Mouth gags; mouth props	Elevators
Tongue forceps	Probes
Packs	Mouth mirror
Rubber apron	College tweezers
	Kidney shaped basin

##### Restoratives

Everything necessary for the operation must be prepared before the patient enters the surgery.

- (a) Instruments are sterilized.
- (b) Place instruments on the bracket table and cover with a clean towel so that they are out of sight of the patient.



- (c) The anaesthetic apparatus should be spotlessly clean, and tested to ensure it is in working order. Test cylinders for ample supply - mark them respectively "IN USE" and "FULL".

## 2. Preparation of the Patient for General Anaesthesia

- (a) The patient should previously have been instructed to avoid any meal for at least 3 hours prior to his appointment.
- (b) Tell the patient to use the latrine before entering the surgery.
- (c) Spectacles, dentures and wristwatch are removed; battle dress blouse removed; tie, collar and waist-band of trousers loosened. Female patients are instructed to loosen tight clothing at the time of going to the latrine.
- (d) Seat the patient comfortably in the chair, with the body upright and hands clasped across the stomach, fingers being interlocked. Feet must be placed on the floor on either side of the foot rest or alternatively on the foot board from which the actual foot rest has been removed. The headrest should be firmly secured.
- (e) Adjust the rubber apron.
- (f) During the induction of anaesthesia there must be no conversation, rattling of instruments or obvious preparations for the operation. The last sense to be lost during induction is that of hearing; it is also the first to return during recovery. Therefore unguarded remarks must not be made during induction or as the patient returns to consciousness.
- (g) If the patient struggles during induction the only form of restraint required is to keep his hands still so that he cannot reach up and pull the apparatus off his face.



- (h) The patient is allowed to recover consciousness in his own time. The kidney bowl is used until such time as the patient is able to hold the tumbler and use the spittoon in the normal way.

## SECTION XXV

## WEIGHTS AND MEASURES

Apothecaries Weight.      Used for dispensing by weight.

20 grains      = 1 scruple

3 scruples    = 1 drachm

8 drachms     = 1 ounce

12 ounces     = 1 pound

Apothecaries Measure of Capacity.      For dispensation by volume.

60 minims              = 1 fluid drachm

8 fluid drachms       = 1 fluid ounce

20 fluid ounce        = 1 pint

2 pints                = 1 quart

4 quarts               = 1 gallon

Avoirdupois Weight.      Used for general merchandise

16 ounces      = 1 pound

112 lbs.        = 1 cwt.

20 cwts.       = 1 ton

Troy Weight.      Used for weighing precious metals.

24 grains              = 1 pennyweight

20 pennyweights      = 1 ounce (480 grains)



NOTE:- In accounting for gold and silver, the ounce, divided decimally will be used as the unit of weight.

Abbreviations

Grain	=	gr.
Gramme	=	g. or gm.
Drachm	=	dr., Fl. dr.
Ounce	=	oz., Fl. oz.
Pound	=	lb.
Minim	=	min. or m.
Cubic centimetre	=	c.c.

Some convenient ready measures. (Not absolutely correct).

1 drop	=	1 minim
17 minims	=	1 c.c.
1 teaspoonful	=	1 fluid drachm.
1 tablespoonful	=	$\frac{1}{2}$ fluid ounce
1 tumbler full	=	10 to 12 fluid ounces.

SECTION XXVI

INSTRUCTIONS FOR DEALING WITH MILITARY  
CORRESPONDENCE  
AND DOCUMENTS IN MILITARY OFFICES

The conduct of military correspondence is laid down in King's Regulations.

Correspondence should be dealt with promptly, clearly and concisely.

Each subject must be treated as a separate letter or memorandum.



Before composing a letter or memorandum the writer should endeavour to put himself in the position of the recipient who, as yet, knows nothing of the subject being dealt with.

The letter or memorandum should be divided into paragraphs. Each paragraph should relate to points which have some obvious connection. In official correspondence the paragraphs should be numbered, so that any particular point may be easily referred to in a reply.

Military correspondence is normally conducted in memorandum form.

#### EXAMPLE OF MEMORANDUM

Office of Origin and Full Address.

Telephone Number.

Reference Number.

Date.

To: .....

Subject: .....

#### BODY OF MEMORANDUM

Signature, rank, unit or appointment  
of Officer signing. (Type Signature).

Copies to:- (as necessary).

#### PROTECTED DOCUMENTS

Documents containing information which for military or administrative reasons it is desirable to safeguard, are regarded as protected documents and classified as follows:-



## TOP SECRET

Documents, information or material of paramount importance whose unauthorised disclosure would cause grave damage to the nation.

Dealt with by Officers only and kept in a locked safe.

## SECRET

Documents, information or material, the unauthorised disclosure of which would endanger national security or would be of great advantage to a foreign nation

Dealt with by Officers only and kept in a locked safe.

## CONFIDENTIAL

Documents, information or material, the unauthorised disclosure of which would be prejudicial to the interests or prestige of the nation or an individual or would cause embarrassment, or difficulty to an individual, or to be of advantage to a foreign nation.

Opened by an Officer. Transmission in two envelopes, the inner one marked "CONFIDENTIAL". Inner envelope is not waxed sealed. Must be kept in a locked container.

## RESTRICTED

Restricted documents are those of lesser category which should not be published or communicated to anyone except for official purposes.

Authority to open may be delegated to the Chief Clerk provided he is of the rank of serjeant or above. Transmission in two envelopes, the inner marked "RESTRICTED". The inner envelope is not waxed sealed.

## NORMAL CORRESPONDENCE

Authority to open day to day correspondence may be delegated to chief clerks provided they are of the rank of serjeant or above.



## SECTION XXVII

### REGULATIONS RELATIVE TO DENTAL TREATMENT AND PROSTHETIC WORK

Regulations relating to these subjects are contained in Regs. M.S.A. 1938, as modified from time to time.

## SECTION XXVIII

### METHODS OF ACCOUNTING FOR MEDICAL EQUIPMENT

Equipment held on charge will be accounted for in detail in authorised ledger(s). The ledger(s) will be kept in duplicate. It is an annual account, the date of the accounting year being notified by the Command Secretary or Army Auditor.

The ledger is maintained as follows:-

- (i) All detail will be in manuscript. Nomenclature and sectional arrangement will accord with P.L.M.E. Catalogue numbers will be entered in the appropriate spaces. Articles not catalogued in the P.L.M.E. will be grouped alphabetically in a special section headed "N.I.P.L." ("Not in Priced List").
- (ii) Corrections will not be made by erasure but by cancellation and amendment in ink initialled by the accounting officer.
- (iii) All entries must be supported by vouchers which will be serially numbered and filed appropriately in separate Issue or Receipt folders.

The voucher numbers will be entered in the Schedule of Vouchers.

### ANNUAL EXAMINATION OF ACCOUNTS

For the annual examination of accounts the ledger will be closed at the end of the accounting period. All differences in quantities between receipts and issues representing existing stock should agree with a physical check. All remaining quantities will be brought forward in a new ledger. The Accounting Officer will then sign the appropriate certificate on the back of the ledger.



The original and duplicate copies of the closed ledger together with all supporting vouchers will then be sent to the administrative Dental Officer or an Officer appointed by him who will check, countersign and return the ledgers to the unit. Such an officer is known as the "Examining Officer", and this check referred to as the "Local Examination of Accounts".

After local examination and within thirty days of closure the original ledger, together with the relevant vouchers is sent to the Command Secretary (or Army Auditor). Should the accounts have been maintained on loose leaf ledgers (Army Forms I.1211 and I.1212) they will be accompanied by a certificate of local examination (A.F.I.1210). Observations may be raised by the auditor, and will be answered at once and fully. Should such observations necessitate any corrections in the ledgers, these will be effected by the use of certificate vouchers (Issue or Receipt) or transfer vouchers and will refer to the relevant observations by the auditor.

#### ACCOUNTING FOR MEDICAL EQUIPMENT OR MATERIALS RECEIVED FROM NON-MILITARY SOURCES

##### A. Contractors

- (i) AMD.3 Form 6 is used by Contractors when despatching medical equipment to Army Units, two copies being forwarded. The original copy of this form is not returned to the consignor when receipted but to War Office, AMD.3.
- (ii) On the same day one copy of A.F.P. 1964 (List of Bills passed for payment) is suitably prepared and despatched to the War Office, Q.M.G.(F).
- (iii) The second copy of AMD.3 Form 6 is returned by the consignee and recorded as a Receipt Voucher.

##### B. Local Purchase

Local purchase of certain items of medical equipment or materials may be authorised by the Administrative Medical officer.



In such cases payment will be effected under arrangements made by him.

- (i) On receipt of the goods the consignee will despatch to the firm two copies of A.F.P.1922 (Summary of Bills).
- (ii) Both copies will be suitably completed by the firm's cashier and returned to the consignee.
- (iii) The consignee will complete and sign the appropriate certificate on the reverse of the forms and forward one copy to the Administrative Medical Officer for action.
- (iv) The second copy will be retained by the consignee as a Receipt Voucher.

#### SECTION XXIX

#### ROYAL ENGINEER SERVICES

The engineer works services exist to provide the Army with suitable and authorised accommodation, whether in barracks, huts, or requisitioned property, and keep that accommodation in adequate state of repair.

They are also responsible for fixtures, sanitation, road service, water supply, heating and lighting.

When "Services" are completed the engineers prepare a record of the accommodation of A.F.K.1251 (Detailed record of accommodation) and an inventory on A.F.G.1001 (Inventory of fixtures in outbuildings etc.) of the engineers fixtures installed. The accommodation record also serves the O. i/c Barracks, who hands over the accommodation to units. The inventory of engineer fixtures is supplied to units initially in occupation, signed by the C.O. who thereby becomes responsible, and used as a basis for handing over between successive occupants.

#### UNIT MONTHLY INSPECTIONS

The C.O. in discharge of his responsibility as a tenant makes monthly inspections, and must draw the engineer's attention



to any items which need repair.

The engineer himself (Garrison Engineer or Clerk of Works) also makes periodical inspections for the purpose of noting the state of the buildings, fixtures, and the services provided.

The engineer decides if the need for repairs is the result of neglect or wilfulness on the part of the occupying unit, in which case the Clerk of Works sets in motion a procedure for the recovery of the cost, or part of the cost of making good from the responsible unit.

## REPAIRS

All demands for minor repairs are listed on a requisition for repairs. A small requisition form A.F.K.1306 (Requisition for urgent repairs) marked "urgent" is used for urgent items, whilst others, less urgent and more numerous, are submitted on a larger form K.1308 (detail of repairs noted at inspections). A certificate "certified due to fair wear" is included in both, and is signed by an officer of the unit or department which made the inspection and submits the demand.

Misuse of the "urgent" demand (A.F.K.1306) is detrimental to the interests of all.

All urgent demands must therefore be carefully checked. Any that are not considered urgent will be returned at once by the G.E. or D.C.R.E. to the unit, asking that the demand be included on the monthly list.

## "MARCHING IN" AND "OUT" INSPECTIONS

When W.D. or hired property is vacated or changes hands the engineer makes a "marching in or out" inspection (King's Regulations, refers).

He is accompanied by representatives of the ingoing and outgoing units, or if the place is being vacated, by the outgoing representative and the O. i/c Barracks or his representative. The latter attends to check the barrack furniture and re-allot the accommodation, or to "take it over" if it is being temporarily vacated.



During such inspections a list of barrack damages and deficiencies is prepared by the C.W. (and registered on A.B.14. (Register of Requisitions for Repairs) kept for the purpose, and by the the unit representatives.

Lists are compared and damages agreed at conclusion, when each signs and dates the other's list. The cost of damages must be borne by the responsible unit or person. Recovering such charges from an individual in the unit is a regimental matter.

### DAMAGES

Damages and procedure for the recovery of charges are dealt with in section 14 of Regulations for Engineer Services Part 1.

### SECTION XXX

### PART II ORDERS (OFFICERS)

(These notes must be read in conjunction with A.C.I.789 of 1943.)

In order that a complete record of an Officer's service can be maintained both by his unit and by the personnel branch of the War Office, and to ensure that correct and early adjustments to an officer's pay and allowances are notified to the O. i/c Army Pay Office, (Officers' Accounts), units are required to publish periodical orders known as "Part II Orders (Officers

When necessary, these orders are published on Tuesdays and Fridays of each week to show all casualties occurring up to 12.00 hours on those days. They must be posted by 17.00 hours on the day of publication.

When no casualties have occurred it is not necessary to prepare a Part II Order as a "Nil" order is not required.

The orders are divided into two sections:-

- (i) Section "A" - Casualties affecting entries in the Officer's Record of Service (A.F.B199A).



Examples - Promotions

Awards of honours, decorations and medals.

Births, Marriages, Deaths, etc.

Courses of Instruction attended.

Permanent Postings.

Change of address of Next-of-Kin.

(ii) Section "B" - Casualties not affecting entries in the Officer's Record of Service (Army Form B.199A).

Examples - Lodging Allowance.

Ration Allowance.

Grants of Privilege Leave.

Casualties affecting changes of accommodation.

Commencing with the first order published after the 1st Jan of each year, Part II Orders will be serially numbered. The number of last order published will be stated.

Casualties will be arranged alphabetically in sections and will be given a sub-number. These numbers will be renewed in each Part II Order (Officers) published and will not be carried forward.

Each copy of Part II Orders will be signed by the Officer-in-Charge.

The distribution of copies of orders together with relevant notes and special instructions etc., is shown below. The address and telephone number of the unit will be shown only on the duplicate copy (see 2 below).

#### Casualties Affecting R.A.D.C. Units

Matters of a purely personal nature which (while notifiable to the War Office, Os. i/c Records or Paymasters) have no direct



military bearing in respect of an officer's or other rank's efficiency or discipline in his present unit, are promulgated in separate issues of Part II Orders. These issues are not displayed on unit notice boards.

Entries on the following subjects are promulgated in these separate issues:-

Births	Nationality
Deaths (other than service personnel)	Next-of-kin
Marriages	Borstal sentences
Divorces	Approved Schools
Religion	

Disciplinary awards are not promulgated in these separate orders.

These separate issues are published within existing serials and numbered consecutively with other Part II Orders in those serials.

The separate issues should bear a sub-heading "Private Nature".

Both Part II and III Orders (unless there is nothing to report) are published on the 20th of each month, to coincide with the preparation of A.F.B.158 series on that date, in addition to the normal publication twice weekly.

This additional issue of Part II/III Orders includes all changes which occurred between the date of the last Part II/III Order and the 20th of the month. A "NIL" return is not required on the 20th of the month. (See A.C.I.655/48.)

M and S gradings in Pulheems assessment are published on a special confidential issue of Part II/III Orders and not displayed on Notice Boards.



DISTRIBUTION (6 copies):-

1. (Original and 1 copy) To:- Under Secretary of State,  
The War Office, (A.M.D.6),  
LONDON, S.W.1  
  
(NOTE) (This address is marked in red ink on the original copy.)
2. (One copy) To:- O. i/c Army Pay Office  
(Officers' Accounts),  
339, Stockport Road,  
Manchester, 13.  
  
(NOTE) (The Address and telephone  
(i) number of the unit appears on this copy only and for this reason the copy is marked "Confidential" and posted as a confidential document (see under "Classification of Protected Documents").  
  
(NOTE) (Officer-in-Charge also enters  
(ii) on this copy, in his own handwriting, the words "Certified Correct", immediately above his signature, thus indicating that the contents have been checked by him and are correct.
3. (One copy) To:- Officer-in-Charge Barracks.  
  
(NOTE) The Officer-in-Charge Barracks  
(iii) checks casualties regarding accommodation or lodging allowance.
4. (File copy) For office record.
5. In the event of an officer being posted, a copy of the order showing the casualty is forwarded to his new unit.



Similarly the new unit forwards a copy of the order showing the officer as having joined.

6.

A further copy is forwarded to the District or Command Headquarters if required.

### SPECIMEN ORDER

#### PART II ORDERS (OFFICERS)

Unit:- No. 106 Army Dental Centre (Home)

Serial No. 6

Type "B", R.A.D.C.

Date:- 16 May 46

Sheet No. 1 and Last

(Last order published Serial No. 5 dated 13 May 46)

Rank and Name	Personal Number	Parent Corps or Regiment	Particulars of Casualties dates and authorities
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#### SECTION "A"

##### 1. Postings

Lieut. A.P. Smith	(12345)	R.A.D.C.	Posted for duty at No.6 Army Dental Centre, S.O.S. of this unit w.e.f. 14 May 46. Authority:- D.D.M.S. Southern Command SC/CR/151/46 dated 10 May 46.
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##### 2. Promotion

Lieut. R.A. Jones	(67218)	R.A.D.C.	Promoted to W/S Captain w.e.f. 9 May 46. Authority:- War Office Order No.5 dated 12 May 46.
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Rank and Name	Personal Number	Parent Corps or Regiment	Particulars of casualties dates and authorities
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# SECTION "B"

## 3. Lodging Allowance

WS/Capt. J.T. Cole	(7891)	R.A.D.C.	Placed on Lodging List at single rates w.e.f. 10 May 46. Authority:- Officer i/c Barracks CR/561/2 dated 13 May 46. (Copy to Officer-in-Charge, Army Pay Office, (Officers' Accounts).)
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Major, R.A.D.C.  
Officer in Charge.

## DISTRIBUTION:-

The Under Secretary of State, The War Office (A.M.D.6).  
Officer i/c Army Pay Office (Officers' Accounts).  
Officer i/c Barracks.  
D.D.M.S. Southern Command.  
A.D.M.S. Aldershot District.  
Officer i/c No. 6 Army Dental Centre (Home) R.A.D.C.  
File.



SECTION XXXI THE PREPARATION OF POTASSIUM SULPHATE SOLUTION  
FOR USE WITH PLASTER OF PARIS FOR  
IMPRESSION TAKING

Plaster of Paris is used for taking impressions of the mouth. It is usual to add potassium sulphate to the 'mix' to reduce the expansion which normally takes place.

Make a solution to the following formula:

(Using Zelex scales  
and cups the equivalent  
weights are):-

potassium sulphate	2 ozs.	=	6 pennies
borax	1/5 oz.	=	2 sixpences
water	2½ pints	=	13½ Zelex cups

Use 30 c.c. of this solution to 50 grms of plaster. This produces sufficient for a normal impression.

An impression mixed in this manner has four desirable features:

- (a) Expansion is reduced to negligible proportions.
- (b) If it breaks on removal from the mouth it does so with a clean fracture and the fractured pieces may be easily fitted together.
- (c) It has known setting time, 3½ minutes.
- (d) The tendency to the formation of air bubbles within it is greatly reduced.

The impression may be coloured by the addition of 3 to 4 drops of blue ink immediately prior to mixing.



SECTION XXXII      THE PREPARATION OF SOLUTIONS OF ROCHELLE SALT  
(SODIUM POTASSIUM TARTRATE)

The same reasons that make it necessary to reduce expansion in the impression frequently make it desirable to reduce expansion in the model cast from the impression. This is done by mixing the plaster of Paris with a solution of Rochelle Salt:

rochelle salt	2 ozs.	=	6 pennies
borax	1/5 oz.	=	2 sixpences
water	2½ pints	=	13½ Zelex Cups

Use in the proportion of 40 c.c. of the solution to 100 grams of plaster.

Not only will plaster mixed as above produce a model with the minimum expansion, but it will also be 'stone' hard.

SECTION XXXIII      METHOD EMPLOYED TO CAST "STONE" MODELS  
INCLUDING THOSE CAST FROM  
ROCHELLE SALT SOLUTIONS

The mix should be well spatulated for two to three minutes and then vibrated into the impression, which must have been previously "boxed".

Continue to vibrate until the "box" is full and then allow the boxed impression to stand, impression tray downwards, until the 'stone' is completely set.

The 'stone' takes approximately 30 minutes to set, but it is advisable to wait a full hour before attempting to remove the impression from the model.

An impression is "boxed" thus:-

A sheet of wax, corresponding in width to the required depth of the model and sufficiently long to surround the impression completely, is stuck securely to the outside of the impression. The wax will thus form the sides of a topless box while







by germs and so arrests further decay. It is usually seen in first permanent molars, which present a black or brown, hard, polished, smooth occlusal surface.

- (c) PULPITIS is an inflammation of the pulp, mainly due to caries. It is a common cause of pain.
- (d) ACUTE ALVEOLAR ABSCESS. When the pulp dies as a result of caries, or injury to the tooth, there is a discharge of germs and pus through the apical foramen into the surrounding periodontal membrane and bone. This localised collection of pus (abscess) causes an acute swelling of the gum or face, which is tender to pressure, hot and red.

#### GUMS

- (a) CHRONIC MARGINAL GINGIVITIS. In neglected mouths, deposits of food and calculus (tartar) round the necks of teeth lead to a chronic inflammation of the gum margins, which become soft, spongy, swollen, and retracted from the teeth.
- (b) PERICORONITIS. Inflammation of the gum over an erupting tooth, particularly the lower third molar in the young adult, when the wisdom teeth are about to erupt.
- (c) ACUTE ULCERATIVE GINGIVITIS (A.U.G.). A severe ulceration of the gum starting at the crest of the gum and spreading rapidly to involve several, or all teeth in one or both jaws. The ulcers are covered with a yellowish-grey membrane, are very painful and bleed easily when touched. The breath is foul; the patient feels ill; the glands under the jaw are usually swollen; the temperature may be raised.

#### BONE

PYORROHEA ALVEOLARIS. This starts as a chronic marginal gingivitis which gradually spreads downwards to involve the periodontal membrane and alveolar bone in a slow,



progressive destruction.

As the bone becomes increasingly absorbed, deep pockets are formed round the teeth, pus wells up from them and the teeth become looser as more bone is absorbed.

## SECTION XXXVI

### FIRST AID TREATMENT AND CARE OF JAW FRACTURE CASES

There are two main types of jaw fracture.

- (A) ACCIDENTAL - due to blows, kicks, falls, road accidents, crashes, crushes.
- (B) WOUNDS - caused by high-velocity missiles, such as bullets and fragments of shell, bomb, mine, grenade, mortar, etc.

#### (A) ACCIDENTAL TYPE

##### MANDIBULAR FRACTURE - FIRST AID

- (a) Ensure that there is no teeth or part of a tooth or denture lying at the back of the throat.
- (b) Give upward and forward support to the lower jaw by applying a modified barrel bandage.

##### MODIFIED BARREL BANDAGE:

Requirements:- Two 2" bandages, 2 yards long; 2 safety pins; 8" adhesive tape.

##### Method of application

- (a) Instruct the patient to close the jaws as much as possible.



- (b) Unroll one bandage from under the chin, in front of the ear, over the top of the head and down again in front of the opposite ear. Repeat till bandage is used up and secure with 4 inches adhesive tape. This should give 4 or 5 complete vertical turns.
- (c) The second bandage is then applied horizontally round the head, starting at the forehead just above the eyes, carrying along just above the ear and under the bump at the back of the head, then above opposite ear and round again till used up, thus making 4 or 5 firm turns. Secure with adhesive tape.
- (d) Securely pin together the horizontal and vertical bandages where they overlap just in front of and above each ear.

#### MAXILLARY FRACTURE

No first aid is required, other than ensuring that the throat is clear.

The jaws should not be tied together by a bandage.

#### (B) WOUNDS

In this type of fracture, life may be endangered by obstruction of the airway due to:-

- (1) fragments of teeth, bone or denture in throat.
- (2) tongue falling back into throat.
- (3) blood clot.



## TREATMENT:-

If breathing with difficulty, grasp the tongue with a dry dressing (or handkerchief), pull it forwards, pass the forefinger back into the throat with a sweeping movement, to dislodge any foreign body, and quickly place the casualty in such a position that his face points towards the ground. If conscious and able to sit down, he should do so leaning well forward.

If evacuated as a walking casualty, he should rest his hands on the shoulders of the man in front, so that he is guided and supported but can keep his head down. If he is weak or unconscious, he should be laid face downwards with his head supported in the crook of his arm; or his head projected beyond the canvas end of the stretcher, with the forehead supported by bandages or slings running between the stretcher handles. He should be carried feet first, so that the rear stretcher-bearer can constantly observe the man's condition. A bandage as already described should have been applied to cover dressings to the soft tissues, keep out dust and flies, and to some extent support the bony fragments.

## CARE OF CASUALTY

The casualty will be thirsty, with the mouth and lips dry from mouth-breathing.

If he is conscious and breathing comfortable, prop him up and encourage him to drink hot, sweet, nourishing fluid from a feeding cup with four or five inches of rubber tubing on its spout. Pass the tube back between his teeth and check on the least injured side and feed only small quantities at a time. Then smear the lips well with vaseline, lanoline or liquid paraffin. While awaiting evacuation, keep the man well covered in a warm sheltered place. If he has been placed face downwards, watch that he does not roll over on to his back.

He may not be able to speak and because of this become alarmed. Do all you can to allay his anxiety by your quiet reassurance.



## SECTION XXXVII

### SAFE CUSTODY OF PRECIOUS METALS AND VALUABLE MATERIALS

The precious metals and valuable materials used in a dental laboratory are:-

Gold plate	Gold wire
Gold solder	Gold scrap
Silver solder	Silver casting alloy.

The utmost economy must be observed in the use of these valuable items and all reasonable precautions for their safe custody strictly observed.

They will be kept in a locked steel safe, preferably built into or securely bolted to the fabric of the building in such a way that their removal cannot be effected without considerable noise and labour.

Troy weight is used in accounting for precious metals. The ounce, divided decimally, is the unit of weight.

## SECTION XXXVIII

### RECEIPT AND DESPATCH OF MEDICAL EQUIPMENT

#### 1. GENERAL

Medical Equipment may not be transferred between units or despatched to contractors without the authority of the Administrative Medical Officer.

All Equipment despatched or received is accounted for on Issue and Receipt Vouchers which support the ledger entries made by the Consignor and the Consignee.

Should financial transactions be associated with the transfer of equipment the forms relating to the transaction are attached to Issue/Receipt Vouchers.

Several forms are in use as Issue/Receipt Vouchers, the principle underlying their use being the same in all cases:-



- (a) Two copies are despatched to the consignee.

(Note - The consignor normally prepares two additional copies of the voucher - one to serve as a temporary office file record of the transaction; the second to be used as a packing note.)

- (b) Receipt of the goods is acknowledged by the consignee's signature on both copies.
- (c) One copy is then returned to the consignor as his Issue Voucher.
- (d) The duplicate copy is retained by the consignee as a Receipt Voucher.
- (e) The consignor and consignee give their respective copies an Issue or Receipt Voucher Serial Number in accordance with their own series.
- (f) In each case this number and the details of the transaction are entered in the Schedule of Vouchers in the appropriate part of the Medical Equipment Ledger.
- (g) The ledger folio number relating to the entry is inscribed on the form which is then suitably filed.

Some forms are designed for use in sets; additional copies specifically marked being provided as packing notes, temporary file copies, etc. (e.g., A.F.G. 982E). Such uses are described on the various copies of the set.

## 2. RETURN OF EMPTY CONTAINERS

All empty containers, when returned, are marked on the inside and outside of the package; "Returned empty from "

The prices charged by contractors are found on the receipt voucher.

### Documentary procedure

- (1) To Military Units:- Empty containers, when returned to a military unit, are vouchered in the same manner as equipment.



(2) To Contractors;- In order that credit may be secured for the value of returned containers, the documentary procedure differs from normal:

- (a) Four copies of the voucher are sent to the consignee.
- (b) Three receipted copies are returned to the consignor.
- (c) Two of these copies are despatched to the War Office (AMD3).
- (d) One copy, endorsed at the War Office "Credit Secured", is returned to the consignor.
- (e) The "Credit Secured" voucher supports the transaction and is recorded as an Issue Voucher.

### 3. TRANSMISSION OF EQUIPMENT

#### (1) By ROAD:

Requisition for Road Transport is made to the Officer i/c Transport, R.A.S.C. on A.F.F. 756 (one copy) giving forty-eight hours notice of requirement.

#### (2) By RAIL:

Three slightly differing forms are in use as Carrier's Notes:

- (a) AFG980(War): (Sets of 5 copies) - for Medical Equipment sent by GOODS train
- (b) AFG980(A) (War): (Sets of 4 copies) - for Medical Equipment sent by PASSENGER train.
- (c) AFG996 (War): (Sets of 5 copies) - for Medical Equipment classed as dangerous, or explosive (N<sub>2</sub>O Cylinders, full or empty)

The use and disposal of the forms is described on the cover of the pads, the detail on the copies of the forms being self-explanatory.



#### 4. RECEIPT OF EQUIPMENT

##### A - Acceptance of Delivery

- (i) Examine the package and seals for signs of damage or pilfering.
- (ii) Should any discrepancy or unusual circumstance be observed, the attention of the carrier is drawn to it and the carrier's note suitably endorsed.
- (iii) Consignments are opened and the contents checked in the presence of an officer at the earliest opportunity after delivery.
- (iv) Should it be impracticable to check the contents of the consignment at the time of delivery, the receipt given to the carrier is endorsed "Contents not examined"

##### B - Losses, deficiencies or damage of Goods in Transit

###### (1) By POST

- (i) In cases of damage or pilferage of parcels received by POST, the postal authority is informed. The package is kept in the condition in which it was received in order to produce it for inspection.
- (ii) The consignee reports the loss or deficiency to the consignor of A.F.G.985.
- (iii) The voucher entries are not amended but only articles actually received taken on charge, the receipted voucher being so endorsed.
- (iv) Subsequent action for "write off" is taken by the Consignor on A.F.I.1230, two copies of which are sent to the Administrative Medical Officer, his decision being recorded on one copy which is returned to the Consignor.
- (v) This copy supports the ledger adjustment.



(2) By RAIL

(a) Non-delivery of Consignment

- (i) The consignee informs the consignor and the local railway authority of non-delivery within 28 days of despatch, returning Advice Note (Copy 4 of A.F.G. 980 (War) and A.F.G.996 (War): copy 3 of A.F.G.980 (A) (War), suitably endorsed at Part I, to the consignor.
- (ii) The consignor investigates the loss locally. Should the loss be attributed to rail transit he forwards two copies of A.F.I.1230, suitably completed, together with all details of the case to the Administrative Medical Officer requesting "write-off" action. One copy of A.F.I.1230 is returned to the consignor bearing the decision of the Administrative Medical Officer.
- (iii) The consignor supports his subsequent ledger adjustment with the Advice Note, and a copy of A.F.G.978 (or copy of the written notification to the railway), in addition to the copy of A.F.I.1230 authorising the "write-off".

(b) Deficiencies

- (i) Should the consignment be received deficient in quantity the consignee informs both the consignor and the local railway representative within six days of delivery, the signature of the Carrier's Note being so qualified at the time of delivery.
- (ii) The consignee endorses the voucher "only X items received" but does not alter the original voucher entries.



Only the items actually received are taken on charge.

- (iii) A copy of A.F.G.985 accompanies the voucher to the consignor, who, after local enquiry, applies on A.F.I.1230 (two copies) to the Administrative Medical Officer for authority to adjust his account.

(c) Damage

- (i) The consignee reports the damage to the consignor and the local railway representative within six days of delivery. The Carrier's Note is suitably endorsed at the time of delivery.
- (ii) No action is taken by the consignor.
- (iii) The consignee brings the damaged stores to account, supporting the subsequent adjustment of his account by reference on A.F.I.1230 to the appropriate Carrier's Note, with a copy of A.F.G.978 (or a copy of the written notification to the railway), a copy of the notification to the consignor, and any subsequent correspondence.

(3) By Civilian Road Transport under R.A.S.C. arrangement

Claims under this heading are not made for loss or damage of less value than ten shillings. Loss or damage of less value than this will be regarded as a trifling discrepancy. (See below).

(a) Goods sent by Non-Military Consignor

- (i) The consignee notifies:
  - (aa) - The consignor on A.F.G.985, and



(bb) - the O. i/c Transport, R.A.S.C., on A.F.G.978; with a copy of the A.F.G.985 sent to the consignor.

(ii) The consignee supports the discrepancy on the receipt voucher, or his "write-off" action on A.F.I.1230, by reference to his reports to the consignor and O. i/c Transport.

(b) Goods sent by a W.D. Consignor

(i) The consignee despatches one copy of A.F.G.985 and of A.F.G.978 to both the consignor and the Officer i/c Transport.

(ii) The consignor, after investigation, adjusts his account by reference to these forms on A.F.I.1230.

C - Trifling discrepancies - (Normally applicable only to transactions between military units.)

(i) Voucher entries are not amended.

(ii) The Vouchers bear an explanatory endorsement.

(iii) Only items actually received are brought to account.

D - Intrinsic defects of goods from Contractors

Complaints about age, adulteration or chemical defects of medicines, and inferior quality or workmanship of instruments are reported to the War Office (AMD3), giving full details.

SECTION XXXIX

ACCOUNTING FOR SURPLUS, REPAIRABLE,  
UNSERVICEABLE AND LOST MEDICAL EQUIPMENT

A - Surplus Equipment - Medical Equipment found on a total physical check to be surplus to:-



- (1) Scale - Is notified to the Administrative Medical Officer for disposal instructions.
- (2) Ledger Charge - Is at once brought to account by "Certificate Receipt Voucher".

B - Repairable and Unserviceable Equipment

- (1) Minor Repairs - (Items under repair are not struck off charge. A "Repairs and Loans" Account is kept for such transactions.)
  - (i) Electrical - Application is made on A.F.K.1306 to the Garrison Engineer.
  - (ii) Metal or Wood
    - (a) Three copies of A.F.G.1045 are sent to DADOS or DADME.
    - (b) One copy of A.F.G.896-2 is received from the workshops nominated by DADOS or DADME to undertake the work.
    - (c) The item is sent (with A.F.G.896-2) to the workshops a receipt being obtained on A.F.G.1033.
    - (d) One copy of A.F.G.896-3 is received from the workshops notifying completion of the work and naming the means of collection.
- (2) Major Repairs - Application is made on A.F.I.1209 to the War Office (AMD3) through the Medical Administrative channel.

Disposal instructions are then received from the War Office.
- (3) Replacement - When the repair cannot be carried out by a local military arrangement, or if an article has been lost or damaged beyond repair, replacement is normally demanded on A.F.I.1209 at the next periodical indent, the



action taken being stated in the  
"Remarks" column as follows:-

- (i) Item lost or damaged -  
"K.R. complied with" (i.e. two copies of A.F.I.1230 suitably prepared and submitted to the Administrative Medical Officer for his decision regarding apportionment of cost).
- (ii) Item unserviceable through correct use -  
"I certify that this article has become unserviceable through fair wear and tear."
- (iii) Item of glass or earthenware broken by accident -  
"Regs. M.S.A. complied with" or A.F.I.1229 rendered."

(Note: A.F.I.1229 is completed and signed by the accounting officer for all items of glass or earthenware broken by accident and will constitute sufficient authority for "write-off". The damage of such articles, otherwise than accidentally, is reported on A.F.I.1230 as at (i) above.)

#### SECTION XL

#### DISPOSAL OF REPAIRABLE AND UNSERVICEABLE MEDICAL EQUIPMENT

- (i) Repairable - Despatched to the Army Medical Returned Stores Depot, Repository Road, Woolwich, London, S.E.18, vouchered on A.F.G.1033.
- (ii) Unserviceable - Normally sent to the Command Medical Stores, vouchered on A.F.G.1033. Articles of a bulky nature, those made of rubber, or handpieces, when unserviceable, are forwarded to the Army Medical Returned Stores Depot.

(Note: The receipted voucher, when received, supports the "strike-off", reference being made to it in the Remarks column of A.F.I.1209 when the replacement demand is made.)



SECTION XLI

RECOVERY OF CHARGES FROM PERSONS RESPONSIBLE  
FOR LOSS OR DAMAGE OF EQUIPMENT

A - Repairs

- (1) The cost of repair includes all charges (materials, technician's time, etc.)
- (2) Should the cost of repair exceed the cost of a new item the G.O.C. may allow the lesser amount to be charged.

B - Losses, or Damage beyond repair

The full P.L.M.E. price may be charged.

(1) Recovery of charges from an OFFICER

- (i) Three copies of A.F.Ø.1680 are prepared for despatch.
- (ii) Two copies (to one of which A.F.P.1921 (Demand Slip) is attached) is handed or sent to the officer concerned.
- (iii) The third copy is sent to the Regimental Paymaster of the District.
- (iv) The officer concerned sends both his copies together with a cheque or other negotiable document to cover the charge to the Cashier at the District Regimental Pay Office, who returns one receipted copy to the officer.
- (v) The Cashier informs the District Regimental Paymaster of settlement.
- (vi) The District Regimental Paymaster then despatches his copy of A.F.O.1680, suitably endorsed, to the accounting officer.
- (vii) The endorsed copy is then attached to A.F.I. 1230 which constitutes the Issue Voucher for striking the article off charge.

(2) Recovery of charges from an OTHER RANK

- (i) Three copies of A.F.P.1954A are prepared for despatch.



- (ii) All copies are sent through the unit to the unit Regimental Paymaster.
- (iii) One copy is returned to the accounting officer endorsed to show that the amount has been deducted from the soldier's account.
- (iv) The endorsed copy is then attached to A.F.I.1230 which constitutes the Issue Voucher for striking the article off charge.

## SECTION XLII      BOARDS OF SURVEY AND COURTS OF INQUIRY

### 1.    Object

A Court of Inquiry or Board of Survey may be assembled by an Officer in Command to assist him in arriving at a correct conclusion on any subject upon which it may be expedient for him to be informed.

Boards of Survey may be assembled at regular stated intervals to investigate and report upon permanently recurring change, e.g. the deterioration of equipment as a result of use. The periodicity of such Boards is laid down in the regulations governing the various branches of the Service.

A Board of Survey differs from a Court of Inquiry only in its object, which should not involve a point of discipline.

### 2.    Composition

A Court of Inquiry consists of two or more members, its composition being determined by the circumstances. Three members will normally be sufficient, at least one being an Officer. No person below the rank of Warrant Officer may be a member of a Court of Inquiry or Board of Survey.

Previous notice is given of the time and place of meeting of the Court, and of all sittings, to all persons concerned in the Inquiry.



### 3. Procedure

The proceedings of such Courts or Boards are recorded on Army Form A.2.

Normally, the senior member is appointed by name to preside.

The Court is guided by the written instructions they have received. These instructions will be full and specific, and state whether a report is required or not.

The Court may be reassembled as often as desired to attain its purpose.

It is the duty of the Court to test the truth or accuracy of the evidence and otherwise to elicit the truth by putting such questions to witnesses as they may think desirable for this end.

When a Court of Inquiry assembled to investigate the loss of or damage to Government property attributes the defect to neglect or carelessness, an opinion is given to show whether the fault amounts to gross negligence or gross carelessness.

A Court of Inquiry is invariably and immediately convened to investigate any loss or damage likely to lead to a claim for compensation against the public. Such a Court reports:-

- (i) The amount of the loss or damage.
- (ii) Whether the military person concerned was on duty at the time .
- (iii) Whether the negligence by the military person was a contributory factor.

Should the Inquiry appear to affect the character or the reputation of an Officer or Soldier his presence is required throughout the Inquiry, to enable him to make a statement, give evidence or cross-examine any witness in order to protect his name.

The proceedings of a Court of Inquiry are inadmissible in evidence at a subsequent Court Martial unless taken on oath



(which may be directed by the convening Officer) and then only in the case of a charge of wilfully giving false evidence. The Court itself is not sworn.

Detailed regulations relating to Courts of Inquiry and Boards of Survey are contained in King's Regulations and the Manual of Military Law (Rules of Procedure, Part II).

#### SECTION XLIII

#### RECORDING THE WORK AND ISSUE OF MATERIALS IN A DENTAL LABORATORY

ARMY BOOK 489 - (Dental Laboratory Book) is used for this purpose. Each page has six columns as follows:-

##### 1. Appliance Number

For additional ready reference, a column is added before the appliance number to indicate the initial letter of the patient's name. This is used in conjunction with an index book in which certain particulars (not included in A.B.489) are also entered.

##### 2. Description of Work:-

Sub-divided into three columns.

- (a) Laboratory Serial Number.
- (b) Description of work (upper).
- (c) Description of work (lower).

##### 3. Dates:-

Dates of receipt and despatch of work in its various stages are recorded.

##### 4. Materials used:-

Sub-columns indicate such items as precious metals teeth, clasps, strengtheners, wax, rubber and plaster. An accurate account must be kept of all teeth and



precious metals used, including the exact weight and carat of any gold expended.

5. Name of Technician

The name of the technician responsible for the work is shewn in this column.

6. Charged to Dental Centre

This column is now used to indicate the amount charged against the individual when work is carried out on repayment.

ARMY FORM I.1249 - Army Dental Laboratory Work Sheet

This form is used only in the laboratory and shows all relevant particulars regarding the work and also special instructions requested by the dental centre.

The form, duly completed in the appropriate columns to show the various materials issued for the particular job, is given to the technician concerned by the senior dental technician.

An additional record of materials issued with each case is maintained by the senior dental technician and a cross check is made at regular intervals to ensure that this corresponds with the totals in A.B. 489 and as indicated on the various A.F's. I.1249.

SECTION XLIV      ADAPTATION OF PLASTIC MATERIALS FOR SPECIAL TRAYS

Special trays can be speedily prepared from such materials as old composition, gramophone records, shellac or other base plate.

The method of construction is similar in all these materials.

The material must first be made into workable sheets. This can readily be done in the case of composition by softening in hot water, then roughly shaping into a flat cake in the hands



and finally placing on a clean glass sheet and rolling with the side of a clean bottle until the desired thickness is attained, which should be slightly thicker than a sheet of modelling wax. A greater degree of heat is required for gramophone records and shellac.

The model is dusted with french chalk and two sheets of modelling wax are moulded over the surface and trimmed to the outline required.

The wax surface is french-chalked and the softened composition is gently moulded into shape on the wax and trimmed to the outline, best carried out with a pair of curved scissors whilst the composition is still soft enough to permit cutting.

A handle and strengthener to the tray is made from a piece of German silver wire about eight inches long; this is bent in the middle and crossed over to form a loop four inches in circumference. At the point of juncture give the wire several twists and compress the loop into an ovoid to form the handle.

It is advantageous to bend the handle away from the surface of the tray at right angles. The twisted part should again be bent at right angles in order to allow clearance for the lips.

The two ends of the wire handle are now adapted to the shape of the tray in the region of the summit of the alveolar ridge, and after heating are pressed into position just below the surface of the material.

Additional strength is imparted by heating pieces of old composition in the flame and adding where required.

## SECTION XLV

## PROPERTIES OF ACRYLIC RESIN

Acrylic Resin or Methyl Methacrylate is supplied for dental purposes in powder and liquid form. The liquid is the monomer form and the powder the polymer form. The powder and liquid are brought together to make a dough. With the application of heat this dough eventually becomes a solid. During this process a soft plastic stage is reached when this dough may be moulded under pressure into various shapes.



Monomer is very volatile therefore the bottle must be kept corked securely except when in actual use. It must be kept away from any naked flame. No powder should be allowed to contaminate liquid. A very small quantity of polymer can solidify a whole bottle of monomer.

Polymer will not undergo any change under normal storage temperature and conditions. The processing of the monomer is accompanied by considerable contraction. The processed denture base is water-absorbent and shows a dimensional change of approximately 1% resulting in contraction of that amount when dry and reversed when kept immersed in water. All processed acrylic prosthesis must therefore be kept in water when not in the mouth.

All normal acrylic resins are radiolucent and do not show any shadow on an X-Ray film.

It is odourless, tasteless and takes a high lasting polish.

Methacrylate is a very poor conductor of heat. This is a disadvantage in a denture base but advantageous in crowns, inlays etc. The fully polymerised material resists the action of most acids and alkalis. It is soluble in acetone, chloroform and phenol. The processed material should not be brought into contact with these chemicals.

## SECTION XLVI      PROCESSING AND DEFLASKING OF ACRYLIC CROWNS AND INLAYS

The processing must be carried out slowly by heating the flask in water.

### Method

1. Suspend the flask in a saucepan containing at least 4 pints of cold water so that it is completely immersed but not touching the bottom.
2. Raise the temperature slowly to 60° C and retain at this for 15 minutes.



3. Now raise the temperature to 70° C maintaining at this heat for 20 minutes.
4. Finally raise to boiling point and maintain for 20 minutes.
5. Remove flask from water and allow it to bench cool.

#### Deflasking of Acrylic Crowns and Inlays

Great care must be exercised in deflasking crowns and inlays as damage to the edges may easily be caused by the plaster knife or other instrument used.

#### Method:

1. Release wing nuts and remove top of flask.
2. Invert flask and tap deflasking plate to remove the enflasked plaster.
3. Cut a groove around the breadth of the plaster in the region of the crown or inlay and by applying gentle leverage separate at this groove. The plaster can now be readily chipped away exposing the crown and its cement or stone abutment or the cement coating of the embedded inlay.
4. For a jacket crown with a cement abutment, remove the cement by drilling out the centre of the abutment with a bur. This requires much caution as the slightest slip will probably render the jacket useless.
5. For a jacket crown with a stone abutment remove the stone by careful chipping with a small instrument.

For an inlay carefully chip the cement away, but ensure that no damage is caused to the edges.



Articles required:

1. Soldering iron or, more correctly, a copper bit consisting of a suitably shaped piece of copper rivetted to end of an iron rod which is held in a wooden handle. Overall length approximately one foot.
2. Suitable solder. This varies from equal parts of tin and lead, by weight, to two of tin to one of lead. If it has to be prepared, melt the lead first before adding the tin to the molten lead, then pour into conveniently shaped strips.
3. Suitable flux - This is prepared by dissolving sticks of Zinc Chloride in approximately three times the quantity of water.
4. Suitable means of cleaning the surfaces to be soldered such as metal file, scratch brush, emery cloth or glass paper.

Order of stages in soldering:

1. Clean thoroughly and approximate the surfaces on which solder is to be attached.
2. Clean the copper bit.
3. Apply flux to the surfaces to be soldered.
4. Heat the bit, but do not overheat it.
5. Tin the bit by dipping in flux and placing the bit on a piece of solder which should readily melt and transfer to the surface of the bit.
6. Apply the bit to the surfaces to be soldered, allowing the heat of the bit to be transferred to the article when the solder will readily be accepted by the surface requiring solder. As soon as the solder becomes sluggish re-heat the bit and proceed as before.

Never expect solder to fill a hole or bridge a space. If such a repair has to be executed always carefully fit a piece of metal across the space.



- y Book 36 Prescription Book; Outdoor Patients.  
40 Medical Equipment Ledger.  
64 Pay Book, Soldiers; Field Service.  
97 Postage Book.  
193 Letters; Register of.  
222 Army Books, Army Forms and Publications,  
Indent for.  
229 Stationery Indent Book for Paper, Envelopes and  
Office Requisites.  
439 Record of Service - Officers.  
468 Denture Book.  
469 Dental Treatment Book.  
489 Dental Laboratory Book.
- y Form A2 Report of Board of Officers or Court of Inquiry.  
B117 Report on Injuries.  
B178A Medical Examination Record and Medical  
History Sheet.  
B198 Soldiers' documents, Receipt for.  
B199A Record of Service of Officers.  
B252 Charge Report.  
B2606 Military Identity Card.  
F742 Transfer Statement of Fuel Balances.  
F756 Transport of Men, Baggage and Stores;  
Requisition for.  
F765 Requisition for Barrack Stores to be exchanged  
or replaced.  
F771 Fuel, Light, etc., Account of.  
G980(War) Combined Invoice and Consignment Note  
for Ordinary Traffic.  
G980A(War) Consignment Note for W.D. Traffic conveyed  
by Passenger Train.  
G1028 Packing Note.  
G1033 Issue and Receipt Voucher.  
G1045 R.A.O.C. Workshop Indent.  
G1049 Transfer Voucher (for striking off and  
bringing on charge).



- Army Form I1201 Approval Form for Artificial Dentures.  
+I1207 Dental Treatment Card - Children.  
I1209 Medical Equipment; Indent and Issue and Receipt Voucher for.  
+I1216 Dental Appointment Form (children attending Army Schools).  
I1229 Certificate of Accidental Breakage of Glass or Earthenware Articles.  
I1230 Report of Deficient or Damaged Medical Equipment.  
+I1233 Dental Treatment Form; Children attending Army Schools.  
I1237 Medical Case Sheet.  
I1246-1 Card, Tie-on; Jaw Fractures.  
I1246-2 Card, Tie-on; Facial Injuries.  
I1249 Work Sheet, Army Dental Laboratory.  
I5025 Nominal Roll of Men for Dental Treatment.  
I5026 Dental Appliance Form.  
I5033 Dental History Card.  
I5034 Monthly Summary of Dental Treatment in Commands or District.  
  
K1306 Urgent Repairs necessary through fair wear and tear; Requisition for.  
K1308 Repairs and minor maintenance Services necessary through fair wear and tear; Requisition for; monthly.  
  
O-1608 Officers' Claim for Outfit Allowance.  
O-1680 Debit/Credit Voucher.  
O-1771 Claim for Travelling and Removal Expenses and Allowances.  
  
P-1921 Demand Slip for attachment to Debit Vouchers.  
P-1922 General Service and Bill for Stores, materials, etc.  
P-1925 Expense Vouchers, General Service; Articles struck off charge.  
P-1940 Postage, Telegrams, Money and Postal Orders; Monthly certificate in support of Charges for.

+ Required only by R.A.D.C. units overseas.









