

# S.O. Book 137.

CODE 28-77-0.



**SUPPLIED**  
FOR THE  
**PUBLIC SERVICE**

W.K. Stevens

## Syllabus for Part I Exam.

Methods of dealing with new glassware  
Testing, cleaning & preparing for use  
Notes.

### Sterilisation by Antiseptics.

1. Volatile Chloroform. Used for  
sterilising & preserving culture  
media (serum). Add 0.25%.  
Can be removed by heating at  
57°C.

2. Phenol. Antiseptics.

Lysol as a 3% soln.  
Phenol itself (0.5%) or  
tricresol (0.3%) for preserving  
sera or vaccines.

# Antiseptics.

## 3. Metallic Salts

Mercuric perchloride 1:1000.

4. Glycerol. 50% soln. for  
preserving viruses &  
preventing growth of  
contaminants.

## STERILISATION BY FILTRATION.

Chamberland. Maasen.

Berkfield. Mandlet.

Seitz Filter.

Ampules sterilized in  
hot air oven with necks

sealed.

media.

Peptone Water. ✓✓

Nutrient Broth. ✓✓

Nutrient Agar ✓✓

MacConkey Broth ✓✓

MacConkey Agar ✓✓

Serum agar. (Slopes). ✓✓

Supas. ✓✓

~~Supas~~

Löffler's serum. ✓✓

Hiss's serum. ✓✓

Blood agar. ✓✓

~~Atterline~~

Hogan & Marshall. ✓✓

~~Atterline~~

Chocolate Agar. ✓✓

Robertson's mince meat Broth.

Litmus milk. ✓✓

## Anaerobic culture.

A mixture of pyrogalllic acid & caustic soda can be used to absorb oxygen.

Mc Intosh & Hildes Jar.

Blood culture

Mackie & McCarty

p 142.

## DISPOSAL OF INFECTED MATERIAL SUBMITTED.

1. Retain specimen until investigation is complete.
2. Autoclave cultures & material in enamel pail.
3. Cultures may be autoclaved or deposited in 5% lysol.
4. Pipettes should be placed in ball jar containing 5% lysol.
5. Boil instruments immediately after use.



## Staphylococci.

yellow	St	Citreus.
orange	..	Aureus.
white	..	Albus.

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## Microscope

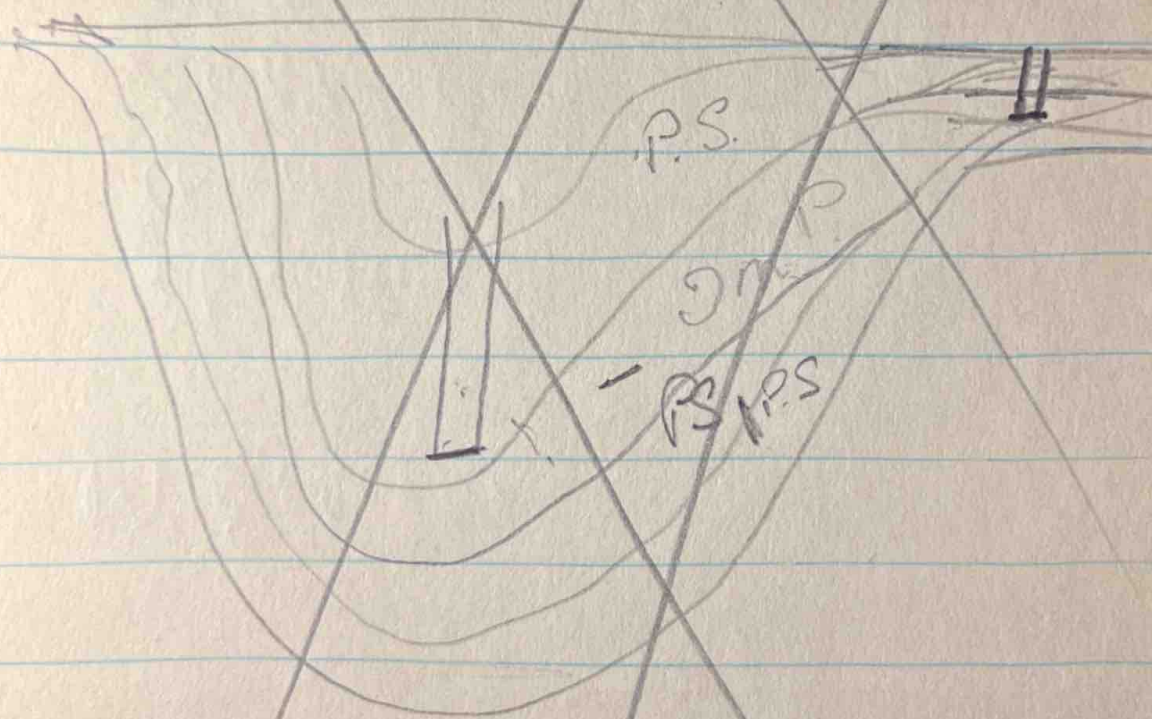
objectives.

condensed.

Light.

Eye piece.

Impetuous Stratum  
 Reversus "



Artesian Well  
 Deep Well  
 Spring  
 Stream  
 Rivers

Bonds  
 Lakes  
 cannot  
 Shallow

Passent pipettes

Passer pipettes.

N<sup>o</sup> 44 soda glass tubing

9"-10" round ends.

Distilled water.

Test for dissolved CO<sub>2</sub> by boiling with phenol red.

Should be no colour change.

Test for chlorides with AgNO<sub>3</sub>.

## Animals.

### Mice.

Food. Stale bread soaked 2 hrs in water. Squeeze out & grate in potato masher.

Give portions the size of a walnut to each mouse.

Weekly, add 1 oz cod liver oil per 250 mice.

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### Cardiac Puncture.

Mackie & McCordney. 5 page 200.

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# STAINS.

GRAMS. ✓

ZIEHL-NEESEN. ✓

NEISSER. ✓

FONTANA. ✓

LEISHMAN. ✓

GIEMSA. ✓

LÖFFLERS METHYLENE BLUE. ✓

STAINING OF SPORES. ✓

# FILTERS

## PASTEUR CHAMBERLAND.

Porosities :- L1. L2 clearing.

L3. gen. purposes.

L4. 5. 7. 9. 11. 13. virus work.

## SEITZ

K - Clearing.

EK - bacterial.

Note when setting up, clamp diagonal

## Cleaning Filters

Disinfect with lysol.

Scrub lightly with soft nailbrush.

Pass through 200 ml. 25% antiformin.

Then 500 ml. dil HCl. 1000 ml  
<sup>Tap</sup> distilled water.

Sterilising - Berkefeld - wrap  
in paper & label. Keep note of  
how many times filter is used  
Autoclave 15 lbs / 15 mins.

DO NOT DRY HEAT.

P. Chamberland - hot air Sterilize.

Berkefeld . W. N. V.

V. pore size is 0.2  $\mu$ .

bacteria above 0.3  $\mu$ .

Test with Staph - 1  $\mu$ .

B. podicipans 0.5  $\mu$ .

Both passed - concludum.

If latter is passed use for serum etc. But both must be held up for inocula, bacteriophage use 6 hour cultures.

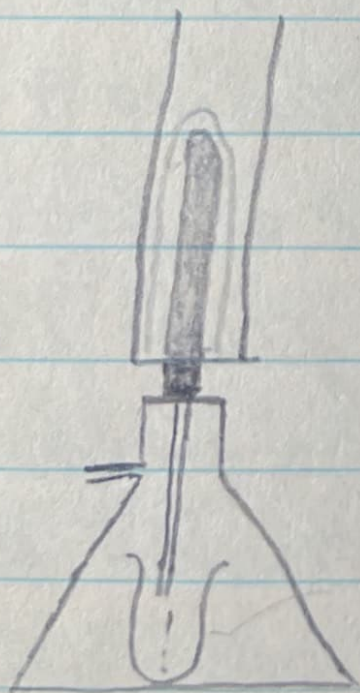
Test by positive pressure air bubble method. (bicycle pump)

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Chamberland - unglazed earthenware.

Berkefeld - Diatomaceous earth.

The Berkefeld.



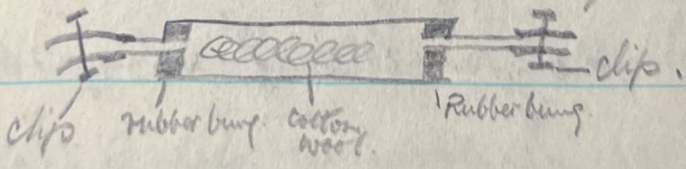
had over and eventually  
arrived at Tautuma 10:30.  
He had to wait for structure  
for the ferry. Eventually it

### Sterilizing the filters.

The mangle, test tube & filter are loosely assembled. The mouth of the tube is plugged with cotton wool and the nozzle of the filter fitted into the bung if a large quantity of fluid is to be filtered.

The whole is wrapped in grease proof paper & autoclaved at 15 lbs/sq in for 20 mins.

The receiving flask is also autoclaved. The flask is stoppered & the side tube fitted with a cotton wool filter.



After use the filter is brushed with a stiff nail brush & boiled in dist H<sub>2</sub>O. Before sterilizing, pass water through to see if the filter is pervious.

## Seitz Filter.

Asbestos pads are only used once; they fit into a glass metal body.

Fitted & sterilized in the same way as Berkefeld.