

A guide to medical case taking.

Contributors

Springthorpe, J. W. 1855-1933.
Royal College of Physicians of London

Publication/Creation

Melbourne : Publisher not identified, 1906.

Persistent URL

<https://wellcomecollection.org/works/bf2ngzu3>

Provider

Royal College of Physicians

License and attribution

This material has been provided by This material has been provided by Royal College of Physicians, London. The original may be consulted at Royal College of Physicians, London. where the originals may be consulted. Conditions of use: it is possible this item is protected by copyright and/or related rights. You are free to use this item in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s).



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

all Dr Spring Thorpe's Compl

(1)

A GUIDE

TO

MEDICAL CASE TAKING

BY

J. W. SPRINGTHORPE, M.A., M.D.,

Physician to the Melbourne Hospital,

Lecturer in Therapeutics, &c., in the University of Melbourne,

AND

Lecturer in Clinical Medicine in the Melbourne Medical School.

MARCH, 1906.

Crawford & Son, Printers, near 111 Collins Street.



6

A GUIDE
TO
MEDICAL CASE TAKING

BY
J. W. SPRINGTHORPE, M.A., M.D.,

Physician to the Melbourne Hospital,

Lecturer in Therapeutics, &c., in the University of Melbourne,

AND

Lecturer in Clinical Medicine in the Melbourne Medical School.

MARCH, 1906.

Crawford & Son, Printers, rear 111 Collins Street.

A GUIDE

TO

MEDICAL CASE TAKING

BY

J. W. SPRINGTHORPE, M.A., M.D.

Physician to the Melbourne Hospital.

Lecturer in Therapeutics, &c., in the University of Melbourne.

AND

Lecturer in Clinical Medicine in the Melbourne Medical School.

MARCO, 1905.

Printed and Published by MARCO, 1905.

PREFACE.

THE following Scheme has been framed for the guidance of Students in the performance of their duties as Clinical Clerks in the Hospital Wards. It is only by such systematic and exhaustive Ward work as is herein indicated, that the Student can give to his eye, ear and hand the practice which ultimately makes them perfect servants of his intelligence, and can store in his brain cells clinical impressions properly registered and ready for use. No amount of memorizing from Text Books, or listening to lectures, or watching others at work, can possibly make up for personal neglect or carelessness in these directions. As a general rule, it is advantageous for Students to work in pairs.

J. W. S.

BRITISH

The following scheme has been framed for the guidance of
Students in the performance of their duties as Clinical Clerks
in the Hospital Ward. It is to be noted by such students and
exhaustive Ward work is to be undertaken, that the student can
give to his eye and hand the practice which ultimately
makes their perfect servants of the intelligence and can store in his
brain cells clinical impressions properly registered and ready for
use. No amount of memorizing from text books or lectures
lectures or watching others at work can possibly make up for
personal method or carelessness in these directions. As a general
rule it is advantageous for students to work in pairs.

A. H. S.

Scheme of Medical Case-taking.

CONTENTS.

IDENTIFICATION.

PAST HISTORY—(a) FAMILY.

(b) PERSONAL.

PRESENT ILLNESS—(a) GENERAL STATEMENT.

(b) DETAILED ENQUIRY.

(c) CLINICAL EXAMINATION.

SUBSEQUENT RECORD.

INDEX TO CLINICAL EXAMINATION.

GRAPHIC REPRESENTATION—(a) BREATH SOUNDS.

(b) HEART SOUNDS.

TEXT BOOKS AND CLINICAL MANUALS.

REQUIREMENTS FROM STUDENTS.

THE BASIS—SELF-TEACHING.

CONTENTS

Introduction

Part I—History—of Brain

Part II—Anatomy

Part III—Physiology—of General Statement

Part IV—Clinical Examination

Part V—Diagnosis

Part VI—Prognosis

Part VII—Treatment

Part VIII—Surgical Treatment

Part IX—Brain Tumors

Part X—Brain Abscess

Part XI—Epilepsy

Part XII—Hysteria

Part XIII—Paralysis

Part XIV—Dementia

Part XV—Alcoholism

Part XVI—Drugs

Part XVII—Electricity

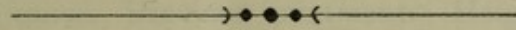
Part XVIII—Surgery

Part XIX—Pathology

Part XX—Bibliography

Part XXI—Index

Scheme of Medical Case-taking.



1. Identification—

Name, Age, Sex (married or single), Residence, Date of Admission, Case Book (number and page).

These are the all important means of identification. They illustrate also the essential value of the commonplace.

2. Past History—

(a) FAMILY.

Age, Health, Cause of Death of Parents, Brothers, Sisters, Children (at times also of Grand Parents, Uncles and Aunts). Cases of Asthma, Bright's Disease, Bronchitis, Cancer, Consumption, Epilepsy, Gout, Heart Disease, Insanity, Paralysis, Rheumatism.

(b) PERSONAL.

As a child, strong or delicate, home and school life, attacks (slight, severe, sequelæ) of Chorea, Convulsions, Diphtheria, Epilepsy, Measles, Pertussis, Rickets, Scarlatina, Tubercle (bone, gland, lung). Personal Liabilities. Temperament. Development. Occupation (effects). Habits, (Drugs, Meat, Tea, Tobacco, Spirits, Wine, Beer). Functions (digestive, eliminative, nervous, sexual). Injuries. Attacks (date, duration, sequelæ,) of Anæmia, Asthma (nervous, bronchial, peptic, cardiac), Bronchitis, Catarrh, Colic (flatus, gall stone, renal, appendical), Headache (site, character), Diarrhœa (character of stools), Dyspepsia (disease of stomach), Heart Disease (functional, organic), Hydatids, Influenza, Jaundice, Kidney Disease Liver Disease (including Diabetes), Malaria, Neuralgia, Neurasthenia, Neuro-Mimesis, Paralysis, Phthisis, Pleurisy (dry, wet), Pneumonia, Rheumatism (muscular, gonorrhœal, joint, cardiac). Sexual Disorders. Typhoid.

The investigation under 2 (and 3) should be much more than simple question and answer. Experience and watching the methods of skilled examiners will, in time, teach what to ask, and how to ask it. There are "more false facts than false theories." What are commonly called "facts" are really the combined representations of patient and examiner, and may not only be incomplete but also blurred by self-interest, ignorance and predilection. As a rule the best answers are obtained from women, and female relatives. Questions of a personal character, such as drinking, hysteria, insanity, &c., are better put indirectly. Other than ordinary sexual matters are best left to the physician. The aim throughout, should be to secure a true and sufficiently complete record, and this is greatly helped by making the patient see that he (or she) is fundamentally interested therapeutically, and that the examiner's attitude whilst sympathetic is entirely professional. In chronic cases this preliminary investigation, together with the subsequent detailed enquiry and Clinical examination, should be made as soon after admission as proves convenient. In special and acute cases, however, all three should be conducted when and as the physician may direct.

Scheme of Medical Case-taking

1. Identification

Name / Age / Sex (written on right) / Religion / Date of Birth / Date of Admission / Case Book Number and page.

Then are the all important items of identification. The absence of any of these items is a serious omission.

2. Past History

(1) Family
Age, Health, Cause of Death of Parents, Brothers, Sisters, Children, etc. (this should be given in brief, but not omitted).
Grand Parents, Uncles, Aunts, etc. (this should be given in brief, but not omitted).
Previous Illnesses, Operations, Accidents, etc. (this should be given in brief, but not omitted).
Tubercle (how, when, where, etc.)
Gonorrhoea (acute, chronic, etc.)
Syphilis (acute, chronic, etc.)
Malaria (acute, chronic, etc.)
Dysentery (acute, chronic, etc.)
Diarrhoea (acute, chronic, etc.)
Constipation (acute, chronic, etc.)
Hypertension (acute, chronic, etc.)
Hypotension (acute, chronic, etc.)
Heart Disease (acute, chronic, etc.)
Liver Disease (acute, chronic, etc.)
Kidney Disease (acute, chronic, etc.)
Stomach Disease (acute, chronic, etc.)
Intestinal Disease (acute, chronic, etc.)
Nervous System (acute, chronic, etc.)
Muscular System (acute, chronic, etc.)
Skeletal System (acute, chronic, etc.)
Sensory System (acute, chronic, etc.)
Motor System (acute, chronic, etc.)
Endocrine System (acute, chronic, etc.)
Immune System (acute, chronic, etc.)
Reproductive System (acute, chronic, etc.)
Urinary System (acute, chronic, etc.)
Respiratory System (acute, chronic, etc.)
Circulatory System (acute, chronic, etc.)
Digestive System (acute, chronic, etc.)
Excretory System (acute, chronic, etc.)
Integumentary System (acute, chronic, etc.)
Skeletal System (acute, chronic, etc.)
Sensory System (acute, chronic, etc.)
Motor System (acute, chronic, etc.)
Endocrine System (acute, chronic, etc.)
Immune System (acute, chronic, etc.)
Reproductive System (acute, chronic, etc.)
Urinary System (acute, chronic, etc.)
Respiratory System (acute, chronic, etc.)
Circulatory System (acute, chronic, etc.)
Digestive System (acute, chronic, etc.)
Excretory System (acute, chronic, etc.)
Integumentary System (acute, chronic, etc.)

The investigation of the past history should be done in a systematic manner. The first part of the history should be the family history, followed by the personal history. The personal history should be divided into the following parts: (1) General History, (2) Systemic History, (3) Local History, (4) Present Illness. The general history should include the patient's habits, occupation, and social life. The systemic history should include the history of the various organs of the body. The local history should include the history of the part affected. The present illness should include the onset, duration, and course of the disease.

3. Present Illness—

(a) GENERAL STATEMENT.

Having thus ascertained the past, the next step is to determine the present. By way of introduction the following general information should now be sought. Most of it will be found already recorded in the Ward Case Book.

Date and mode of onset. Patient's own account (or friends'). Other notable symptoms. Supposed cause. Previous treatment. Height, weight (present and average). General appearance, nutrition, tongue, appetite, bowels, urine, sleep, pulse, temperature, respirations.

(b) DETAILED ENQUIRY.

The physician in charge having made a provisional diagnosis, the student should from his Text Book, make himself a synopsis of what the disease really is (Pathology), how it is brought about (Etiology **x**, efficient **y**, exciting **z**, predisposing), and how it shows itself (Symptomatology). He should remember that Pathology is Physiology in difficulties, and that Symptoms are the results of disturbed structure (Anatomy) and function (Physiology). This Synopsis should be the crystallization of what he has carefully read and observed. It should omit nothing worthy of notice, and give each detail its relative value, and its proper setting. To be personally useful, it must be personally produced, and the student should be able to visualize from it not only the salient points, but the whole picture of the disease. With his synopsis in hand, he should patiently, impartially and tactfully question the patient upon all the points therein disclosed, and record the results.

(c) CLINICAL EXAMINATION.

The Detailed Enquiry should be followed by the Clinical Examination. This is the conclusive verification and amplification of what should have been suggested by the previous statement and enquiry. It is the end and aim of all clinical study. It should be careful, thorough, systematic, and along the lines of a recognised Clinical Manual. In making his examination the student should deal first and mainly with the system primarily at fault, then follow with the others in order, but in less detail. Throughout he should adopt graphic representation as far as possible (charts, diagrams, photos, skiagraphs, tracings, shadings, colours, etc.).

4. Subsequent Record.

Henceforward the student should from time to time compare the Course, Symptoms, Complications, Sequelæ, Treatment, and wherever possible the Pathology, with the corresponding descriptions in his Text Book.

IN ACUTE CASES he should daily enter notes of the Progress and Treatment (writing all prescriptions in full). He should place on the Temperature Chart not only the temperature, pulse, and respirations, but also the day of disease, salient treatment, hours of sleep (*with or without drug*), state of bowels, urine, Widal reaction, leucocyte count, etc.

IN CHRONIC CASES he should make a weekly summary.

In all he should never fail to see the Post Mortem examination whenever one is made.

This subsequent record is necessary both to round off the history of the case, and to complete the student's knowledge of the disease. Further, it affords valuable practice in the art of observation, and in the methods of reporting.

Index to Clinical Examination.

The following may be taken as an *Index* to the procedure in Clinical Examination. It is simply a classified collection of clinical sign-posts. Unless the student has mastered the explanations, which are given in the larger Clinical Manuals, he cannot properly understand the directions, and these will remain comparatively valueless until he has put them to practical testing. Though fairly complete, they are neither exhaustive nor final.

- (a) INTEGUMENTARY SYSTEM—Skin as regards Color (pale, flushed, earthy, waxy, chlorotic, yellow, bronzing, pigmented), Moisture, Eruption (macules, papules, vesicles, pustules, scars, hæmorrhages, erythema, parasites), Oedema, &c.; Eyes (conjunctiva, cornea, tension, pupils, arcus, lids); Face (peritonitis, dyspnoea, phthisis, pneumonia, hysteria, kidney, thyroid, typhoid, mask Hippocratic, mouth breathing, specific), Nose (sunken, red, pinched, etc.), Lips, Hair, Fingers (spade, claw, cold, waxy, clubbed, distorted), Nails, Glands, Joints (size, shape, color, position, mobility, deposits).
- (b) DIGESTIVE SYSTEM—Odor of Breath, Gums (color, spongy, deposits), Teeth (state, peculiarities, specific), Tongue (coated, raw, irritable, indented, fissured, strawberry, dry, brown, ulcer, etc.), Thirst, Nausea, Vomiting (times, character, duration, contents,) Pains (seat, character, effect of food), Dyspepsia (flatulent, acid, nervous duodenal), Bowels (frequency, contents, worms), Rectum (piles, prolapse, stricture, pruritus, tenesmus), Nutrition, Cachexia.
INSPECTION—Dilated Veins (portal, general), Obesity, Tympanites, Ascites, Tumor, Enteroptosis.). PALPATION—Tenderness (deep, superficial), rigidity, flaccidity, fluctuation, enlargements, tumors). PERCUSSION—Stomach, intestine, perforation, fat, oedema, effusions, tumors, etc., change of posture. Stomach capacity, movements, test meals, contents (mucus, blood, food, germs, acid).
- (c) RESPIRATORY SYSTEM—Nose (discharges, alae, blockage, adenoids, closed nasal voice). Lips (herpes, color). Tonsils (enlarged, ulcer, pus, membrane). Fauces (paralysed, specific, open nasal voice). Pharynx (granular, ill nourished, ulcer, etc.). Larynx (vocal cords, voice husky, brassy, whisper, spasm). COUGH, site (nasopharynx, larynx, bronchi, lung), cause (nervous, irritable membrane, secretion, reflex), character (dry, loose, hacking, morning, paroxysmal, with vomiting). SPUTUM, quantity in 24 hours, site, character (frothy, muco-purulent, nummular, blood-tinged, asthmatic, prune-juice, fœtid, gangrenous), contents (leucocytes, hydatids, crystals, casts, elastic fibre, germs). DYSPNŒA, extent, cause (anaemia, heart, spasm, pain, fever, emphysema, obstruction). Orthopnœa. Stertor (nasal, oral, cerebral). Stridor (tracheal, laryngeal). Hæmoptysis (nasopharynx, cardiac, vascular and lung disease), frequency, quantities.

Index to Clinical Examination.

The following may be taken as an index to the procedure in Clinical Examination. It is simply a classified collection of the terms and signs which the student has mastered in the various systems, and these are given in the Index to Clinical Examination, which is placed at the end of the book. The student should be able to find any term which he has put down in his notes, and the Index to Clinical Examination is placed at the end of the book.

(1) **Integumentary System**—Skin is examined Color—pale, flushed, erythema, waxiness, cyanosis, yellow discoloration, pigmentation, freckles, moles, warts, vesicles, pustules, scars, hemorrhages, ulcers, eczema, etc.; Hair—quantity, color, texture, loss, alopecia, dandruff, itching, pruritus, psoriasis, pediculosis, etc.; Nails—shape, size, color, texture, mobility, separation, etc.;

(2) **Digestive System**—Color of mouth (gums, lips, tongue, throat, etc.); Teeth (state, position, eruption, etc.); Tongue (color, coating, etc.); Throat (color, etc.); Stomach (distension, tenderness, etc.); Liver (size, position, tenderness, etc.); Gall-bladder (tenderness, etc.); Pancreas (tenderness, etc.); Intestines (position, tenderness, etc.); Rectum (tenderness, etc.); Hemorrhoids, fistulae, etc.;

(3) **Respiratory System**—Nose (discharge, etc.); Throat (color, etc.); Larynx (color, etc.); Trachea (color, etc.); Lungs (color, etc.); Pleura (color, etc.); Pericardium (color, etc.); Heart (color, etc.);

INSPECTION—Veins, Chest (shape, mensuration, expansion, flattening, sinking, prominence, Litten's sign). Respirations (frequency, type, rhythm, Cheyne-Stokes.) Movements (increased, diminished). **PALPATATION** (fremitus, pulsation, resistance, ossification, fluctuation, friction, râles, succussion). **PERCUSSION** (represented graphically by shading or color (vertical (or blue) for superficial, horizontal (or red) for deep dullness, light or heavy according to degree), regional, comparative, variable force. **RESONANCE** (normal, diminished, hyperresonant, tympanitic, cracked-pot, skodaic, metallic), dullness (relative, absolute, changed with posture), sense of resistance (normal, increased). **AUSCULTATION**, represented graphically (*vide* Appendix A).

BREATH SOUNDS, Vesicular (weak, puerile, rough, wavy, cogwheel, prolonged expiration, bronchial inspiration or expiration), Bronchial, Cavernous, Broncho-Vesicular, Broncho-Cavernous, Vesiculo-Cavernous, Amphoric. **RALES**, consonant and non-consonant, (small, medium, large, mixed, gurgling, tracheal râle). Crepitation (fine, redux). **FRICITION** (fine, coarse, pleuro-pericardiac). **VOCAL RESONANCE**, normal (N), increased (+), diminished (—), absent (o), Bronchophony (Br.), Aegophony (Ae.), Pectoriloquy (P), Metallic tinkling (M.T.), Succussion (Su.) Biermer's, Friedreich's, Gerhardt's, Wintrich's phenomena.

- (d) **CIRCULATORY SYSTEM**—Palpitations (cause). Pain, (gastric, angina, neuralgic, friction) **Dyspnoea** (at rest, on exertion, constant, paroxysmal, orthopnoea). Syncope, Dropsy (since when, feet, body, abdomen, evening. Cyanosis—Cold extremities.

INSPECTION—Bulging, retraction, apex beat (site, extent, character), pulsations (abnormal, cardiac, venous, capillary). **PALPATION**, apex (site, extent, strength), thrill (site, time), friction. **PERCUSSION** (representing superficial dullness by vertical, deep dullness by horizontal shading, or by blue and red colouring), normal, (n) diminished (—), increased. (+) upwards, downwards, to the left, to the right. **AUSCULTATION**—represented graphically (*vide* appendix B).

HEART SOUNDS—Max., intensity, transmission, character (faint, valvular, loud, muffled, delayed, accentuated, reduplicated, short, tic-tac). Rhythm (regular, irregular, intermittent). Tachycardia. Bradycardia. **Murmurs** (max., intensity, transmission, faint, rough, blowing, musical, single, multiple), time (systolic, diastolic, praesystolic). Pericardiac Friction (the serrations being placed in their relative position in the cardiac cycle), venus hum. **ARTERIES** (hardness, tortuosity, visibility, murmurs). Arterio-sclerosis. Aneurism. **PULSE** (parvus or magnus, durus or mollis, celer or tardus, dicrotus, vacuus, alternans, etc., as shown by Sphygmograph). **Blood Pressure**, by Manometer.

- (e) **URINARY SYSTEM**—**MICTURITION** (frequency, pain, size of stream, nocturnal (since when). **KIDNEY** (movable, enlarged). **PAIN** (lumbar, ureter, vesical, testicular, urethral). **BLADDER** (size, incontinence, retention, stricture, suppression, discharges). **PROSTATE** (rectal exam.). **URINE**, quantity, color, odor, reactions, specific gravity, albumen, sugar, bile, blood, pus, phosphates, etc., quantity of sugar, albumen, urea : sediments, casts, spermatozoa, organisms.

Other **PATHOLOGICAL FLUIDS** (hydatid, cerebro-spinal, ovarian, parovarian, ascites, hydronephrosis, etc.).

(f) NERVOUS SYSTEM—DISTURBANCES OF CONSCIOUSNESS (hebetude, somnolence, stupor, coma, coma vigil, epileptic). Delirium (quiet, muttering, ferox, hysteric, alcoholic). DISTURBANCES OF INTELLIGENCE—Weak, stupid, imbecile, memory (recent, old), illusions, hallucinations, delusions (variable, fixed, persecution, grandeur). Insomnia. Mania. Melancholia. General Paralysis. Dementia, Stigmata. Neurasthenia (cerebral, spinal). Neuromimesis (hysteria). DISTURBANCES OF EQUILIBRATION—Vertigo (gastric, ocular, auditory, vascular). Gait—(hysteric, steppage, cerebellar, waddling, ataxic, spastic, festination). Headache (site, character, causation). Speech—lalling, scanning, slurring, aphasia, (hysteric, sensory (word deaf, word blind), motor (vocal, graphic), conduction), mutism. Handwriting—(name, from dictation, from print, essay), tremor, inequalities, incoherence, omitted letters, syllables, words, wrong words, jargon, repetitions, etc.) Cranial Nerves—I. (smell, rhinoscopic). II. (acuity, field, color, fundus). III. and VI. (squint, movements, ptosis, diplopia, nystagmus, pupils (size, reaction, accommodation). V. (sensory, motor). VII. (central, nuclear, peripheral). VIII. (air, bone conduction, tinnitus, otoscopic, Rinne). IX. X. and XI. (taste, swallowing, voice, breathing, pulse, vomiting, vocal cords). XII. protrusion of tongue, movements, fibrillar, atrophy). Motion (*vide* localization in diagrams in Clinical Manual), paresis, paralysis (psychic, Rolandic, capsular, basal, spinal, peripheral). Convulsions (clonic, Jacksonian, tonic, reflex). Tremors (fibrillar, intention, hysteric, P. agitans, senile, choreic, febrile, toxic, athetoid). Contractions (active, passive, Kernig). Ataxy (cerebellar, spinal, hereditary), Dynamometer. Sensation (*vide* localization in diagrams in Clinical Manual). Touch, Pain, Temperature, Pressure, Muscular site (cortex, sensory peduncle, spine, periphery). Tenderness (spots, nerve trunks). Reflexes (*vide* segmental localization in diagrams in Clinical Manual), cutaneous, Babinski, tendon, organic (ciliospinal), vasomotor, genital, rectal, vesical). Romberg. Trophic—Muscle (pseudo-hypertrophy, atrophy, (inactive, degenerative, progressive, nuclear, neuritic, arthritic, myopathic). Skin (glossy, herpes, pigment, gangrene, ulcer, decubitus). Arthropathy, Fragility, Acromegaly. VASOMOTOR (dilator, constrictor, tâche, dermatographism, etc.). Electrical Reactions—(quantitative, qualitative, degenerative). v. Ziemssen's motor points.

(g) REPRODUCTIVE SYSTEM—Male—Functions (abnormal, excessive). Gonorrhœa (bubo, stricture, gleet). Syphilis (date, symptoms, treatment). Examination of Sexual organs. Female—Catamenia (date of onset, regularity, duration, amount. Amenorrhœa. Menorrhagia, Dysmenorrhœa), Pregnancy (signs and symptoms), Miscarriages (time, causes). Climacteric (date, depression, vasomotor). Intermenstrual discharges (leucorrhœa, gonorrhœa, blood). Syphilis (miscarriages, scars, children, &c.). Examination of vagina, cervix, uterus, ovaries, appendages, rectum, Associated Ailments (pelvic, reflex, psychic).

(h) BLOOD SYSTEM—Haemoglobin. Color Index. R.B.C. (number, percentage of normal, micro-macro-poikilocytes, tinctorial changes, granular degeneration, normoblasts (regenerative), megaloblasts (degenerative). W.B.C. (number, percentage of polynuclear (phagocytes), transition, large mononuclear, lymphocytes, myelocytes (marrow), eosinophiles, mast cells, plaques). Anæmia (primary, secondary). Leucocytosis, Lymphocytosis, Leucopenia, Myelocytosis, Eosinophilia, Plasmodium, Filaria, Germs, anti-bodies. Widal, Tuberculin reactions, etc.

Nervous System - Disorders of the Nervous System (Lectures 1-10)
 (1) Introduction to the Nervous System: The Nervous System is the body's communication system, consisting of the brain, spinal cord, and peripheral nerves. It is responsible for controlling and coordinating all bodily functions.
 (2) The Brain: The brain is the central processing unit of the nervous system. It is divided into the cerebrum, cerebellum, and brainstem. The cerebrum is responsible for higher-level functions such as thought, memory, and emotion. The cerebellum is involved in motor control and coordination. The brainstem connects the brain to the spinal cord and is responsible for basic life-sustaining functions.
 (3) The Spinal Cord: The spinal cord is a long, thin, tube-shaped structure that extends from the base of the brain down to the lower back. It is composed of gray matter and white matter. The spinal cord is responsible for transmitting signals between the brain and the rest of the body.
 (4) The Peripheral Nervous System (PNS): The PNS consists of all the nerves that are not part of the brain or spinal cord. It is responsible for carrying signals between the CNS and the rest of the body. The PNS is divided into the somatic nervous system (controlling voluntary movements) and the autonomic nervous system (controlling involuntary functions).
 (5) Neuroanatomy: This section covers the basic anatomy of the nervous system, including the brain, spinal cord, and peripheral nerves. It discusses the structure and function of various parts of the nervous system, such as neurons, synapses, and the blood-brain barrier.
 (6) Neurophysiology: This section covers the basic physiology of the nervous system, including the electrical and chemical signaling mechanisms that underlie neural function. It discusses the action potential, synaptic transmission, and the role of neurotransmitters.
 (7) Neurochemistry: This section covers the role of neurotransmitters in the nervous system. It discusses the synthesis, release, and action of various neurotransmitters, such as dopamine, serotonin, and acetylcholine.
 (8) Neurodegeneration: This section covers the basic principles of neurodegeneration, including the mechanisms of neuronal death and the role of various factors such as genetics, environmental factors, and aging.
 (9) Neuroplasticity: This section covers the ability of the nervous system to change and adapt in response to experience. It discusses the mechanisms of synaptic plasticity and the role of neurogenesis in the adult brain.
 (10) Clinical Neurology: This section covers the basic principles of clinical neurology, including the diagnosis and management of various neurological disorders. It discusses the role of various diagnostic tests, such as MRI, CT, and EEG, and the importance of a thorough clinical history and physical examination.

Reproductive System - Male (Lectures 11-15)
 (11) Introduction to the Male Reproductive System: The male reproductive system is responsible for the production and transport of sperm. It consists of the testes, epididymis, vas deferens, ureters, and accessory glands.
 (12) The Testes: The testes are the primary male sex organs. They are responsible for the production of sperm and the secretion of testosterone. The testes are located in the scrotum, a sac of skin that hangs below the penis.
 (13) The Epididymis: The epididymis is a coiled mass of tubules that sits atop each testis. It is responsible for the maturation and transport of sperm from the testes to the vas deferens.
 (14) The Vas Deferens: The vas deferens is a long, thin tube that carries sperm from the epididymis to the urethra. It is responsible for the transport of sperm during ejaculation.
 (15) The Ureters: The ureters are tubes that carry urine from the kidneys to the bladder. They are located in close proximity to the vas deferens and can be damaged during vasectomy.
 (16) Accessory Glands: The accessory glands of the male reproductive system include the seminal vesicles, prostate gland, and bulbourethral glands. They are responsible for the production and secretion of fluids that mix with sperm to form semen.
 (17) Ejaculation: Ejaculation is the process of expelling semen from the penis. It is a complex process that involves the contraction of various muscles and the release of sperm and fluids from the testes and accessory glands.
 (18) Fertilization: Fertilization is the process of a sperm cell fusing with an egg cell to form a zygote. It typically occurs in the fallopian tube of the female reproductive system.
 (19) Contraception: Contraception is the practice of preventing pregnancy. It can be achieved through various methods, including barrier methods (condoms, diaphragms), hormonal methods (pills, injections), and surgical methods (vasectomy, tubal ligation).

Blood System - Hematology (Lectures 16-20)
 (16) Introduction to Hematology: Hematology is the study of blood and its components. It is a branch of medicine that deals with the diagnosis and treatment of blood disorders.
 (17) The Components of Blood: Blood is composed of plasma and various types of blood cells. Plasma is the liquid portion of blood that carries nutrients, hormones, and waste products. The blood cells include red blood cells (erythrocytes), white blood cells (leukocytes), and platelets (thrombocytes).
 (18) Red Blood Cells: Red blood cells are responsible for the transport of oxygen from the lungs to the rest of the body. They contain hemoglobin, a protein that binds to oxygen. A low number of red blood cells can lead to anemia, while a high number can lead to polycythemia.
 (19) White Blood Cells: White blood cells are responsible for the body's immune response. They are able to identify and destroy foreign invaders, such as bacteria and viruses. There are several types of white blood cells, each with different functions.
 (20) Platelets: Platelets are small, disc-shaped cells that are responsible for blood clotting. They release chemicals that cause blood vessels to narrow and form a plug to stop bleeding. A low number of platelets can lead to bleeding disorders, while a high number can lead to thrombocytosis.













Graphic Representation of Breath Sounds.

APPENDIX A.

The characteristics of Vesicular and Bronchial breathing are given in the accompanying table.

BREATH SOUND.		PITCH.	QUALITY.	LENGTH.	INTENSITY.	CONTINUITY.
Vesicular	Inspiration	low	like a very soft "f"	long	Variable—increase apt to be mistaken for rise of pitch.	yes
	Expiration	lower	simple blowing	much shorter		
Bronchial	Inspiration	high	like	long	variable	no
	Expiration	higher	the syllable "ha"	longer.		

The rules for the graphic expression of Auscultation are simple and easily memorized. Represent the respiratory murmur audible over a certain area of the lung by a small right angle, and mark it at the corresponding spot upon a chest diagram. This sign may be modified in various ways, according to the modification of quality of the respiratory murmur. The vertical limb of the angle represents the inspiratory murmur; the horizontal, the expiratory murmur; the length of the limb shows its duration; the thickness, its intensity. A simple, smooth, straight line signifies normal vesicular breathing; a dotted line, cog-wheel breathing; a toothed line, rough vesicular breathing. A small cross-line on the limb signifies mixed breathing; two cross-lines, pure bronchial breathing. From these rules we can readily understand the following:

- (a)  VESICULAR breathing.
-  Weak vesicular breathing (diminished).
-  Coarse vesicular breathing.
-  Coarse vesicular breathing with prolonged expiration.
-  Rough vesicular breathing with prolonged expiration.
- (b)  BRONCHIAL breathing.
-  Mixed (bronchovesicular) inspiration with bronchial expiration.
-  Vesicular inspiration with bronchial expiration.
-  Mixed (bronchovesicular) inspiration with prolonged expiration.
-  Cog-wheel vesicular breathing.
-  Cog-wheel inspiration with bronchial expiration.
-  Indistinct (feeble) breathing, etc.

Graphic Representation of Breath Sounds

Lecture A

The following are Vesicular and Bronchial breathing as given in the preceding

Respiration	Sound	Quality	Pitch	Duration	Intensity
Vesicular	Normal	Soft	Low	Long	Weak
	Crackling	Harsh	High	Short	Strong
Bronchial	Normal	Harsh	High	Short	Strong
	Crackling	Soft	Low	Long	Weak

The notes for the graphic representation of respiration are simple and easily understood. Represent the respiratory moment as a certain part of the lung by a small right angle, and mark it at the corresponding spot upon a flat surface. This part may be modified in various ways according to the modification of quality of the respiratory moment. The vertical line of the angle represents the respiratory moment; the horizontal line represents the length of the respiratory moment; the thickness of the line represents the intensity of the respiratory moment. A dotted line may be used to represent a weak respiratory moment. A small circle on the line indicates a crackling sound. From these notes we can readily understand the following:


- 1. Vesicular breathing
- 2. Weak vesicular breathing
- 3. Crackling vesicular breathing
- 4. Crackling vesicular breathing with prolonged expiration
- 5. Crackling vesicular breathing with prolonged expiration
- 6. Bronchial breathing
- 7. Mixed (vesicular) breathing with prolonged expiration
- 8. Vesicular breathing with bronchial expiration
- 9. Mixed (bronchial) breathing with prolonged expiration
- 10. Crackling vesicular breathing
- 11. Crackling bronchial breathing with bronchial expiration
- 12. Indistinct (both) breathing, etc.


(c) RHONCHI (air obstructed by cause other than fluid) may be represented
 Sibilant)(Sonorous,)(


(d) CREPITATION, $\frac{1}{2}$ —


(e) RALES (air bubbling through fluid) may be represented according as they are—


Non-Resonant.

 Large, coarse.


 Small, fine.


 Medium.


 Mixed.


 Gurgling.


Resonant.

 Large, coarse.

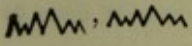
 Small, fine.

 Medium.

 Mixed.

 Gurgling.

Inspiratory râles may be designated by prefixing the letter "i"; expiratory, by prefixing "e."

(f) A PLEURITIC OR A PERICARDIAC RUB may be designated by:
 If it is possible to confuse a pleuritic with a pericardiac rub, "pl"
 or "pe" should be prefixed.

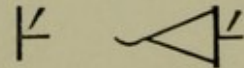
Graphic Representation of Heart Sounds.

APPENDIX B.

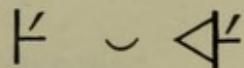
Represent the heart sounds graphically at the apex by a trochee, —∪, and at the base by an iambus ∪— and verbally by tá-ta and ta-tá. Represent a reduplicated first sound by an anapaest ∪∪—, and a reduplicated second sound by a dactyl —∪∪. Represent the heart murmurs verbally by "f" or "ff," according to intensity, and graphically by a crescendo sign for an increasing and a decrescendo sign for a diminishing murmur.

The murmurs of the different valvular lesions, together with their tones in their proper time relations, may then be represented as follows:

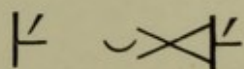
Presystolic accentuation of diastolic murmur.



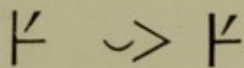
Pure presystolic murmur (most common).



Diastolic murmur accentuated at the beginning and at the end of diastole.



Pure diastolic murmur (least common).



(A) BRONCHI are denoted by curves that their form is represented
 (B) CREPITATION

(C) RALE are indicated though their form may be represented as they are—

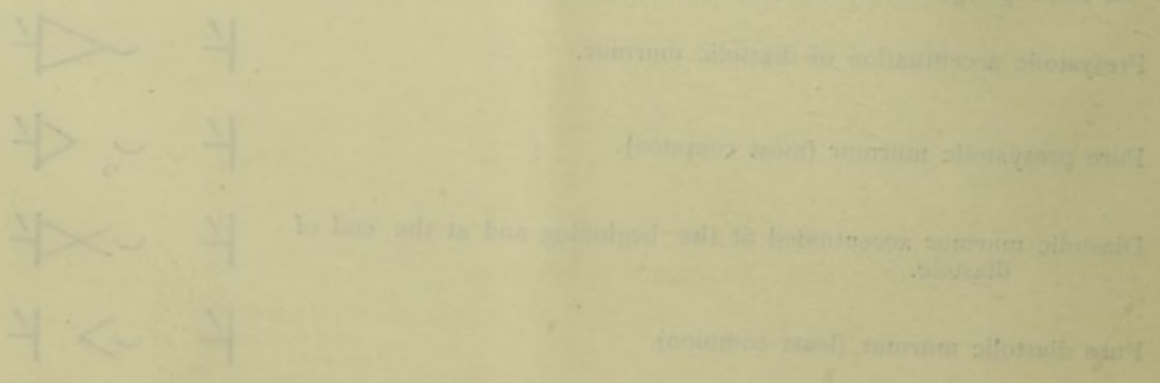
Non-Resonant	Resonant
Large course	Large course
Small fine	Small fine
Mild	Mild
Mixed	Mixed
Coughing	Coughing

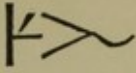
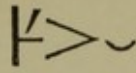
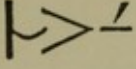
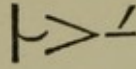
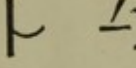
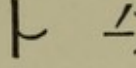
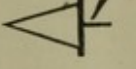
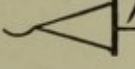
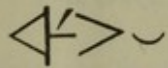

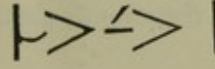
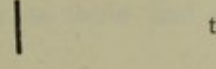
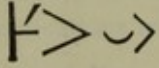
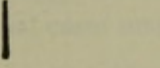
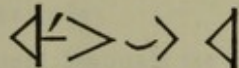

Resonant rales may be denoted by placing the letter "r" in the space, by
 placing "r"
 A PLEURITIC OR A PERICARDIAC RALE may be denoted by
 placing "p" or "c" in the space. It is possible to combine a pleuritic with a pericardiac rale, in
 which case "pc" should be placed.

Graphic Representation of Heart Sounds.

Figure 11

Represent the heart sounds graphically as the apex by a vertical line, and at the
 base by an inverted triangle. Represent a reduplicated
 first sound by an upward curve, and a reduplicated second sound by a
 downward curve. Represent the heart sounds verbally by "1" or "2" according
 to intensity, and especially by a diminishing number.
 The meanings of the different valvular lesions, together with their signs
 in their proper time relations, may then be represented as follows:



Mitral insufficiency Tricuspid " }			táf-ta, táf-ta.
Aortic stenosis Pulmonary " }			taf-tá, taf-tá.
Aortic insufficiency Pulmonary " }			ta-táf, ta-táf.
Mitral stenosis Tricuspid " }			ftáf-ta ftáf-ta.
Mitral insufficiency and stenosis Tricuspid insufficiency and stenosis }			ftáf-ta ftáf-ta
Aortic insufficiency and stenosis Pulmonary insufficiency and stenosis }			taf-táf taf-táf
Mitral and Aortic Insufficiency			táf-taf táf-taf
Both with Mitral Stenosis also			ftáf-taf ftáf-taf

[The graphic representations in A and B are taken (with slight modifications) from Sahli's Bern Clinic. They are simple, suggestive, and satisfactory.]

TEXT BOOKS—

FOR SYNOPSIS :

Osler's Principles and Practice of Medicine.

FOR REFERENCE—

Mitchell-Bruce's Principles of Treatment.

Allbutt's System of Medicine.

CLINICAL MANUALS—

FOR WARD USE :

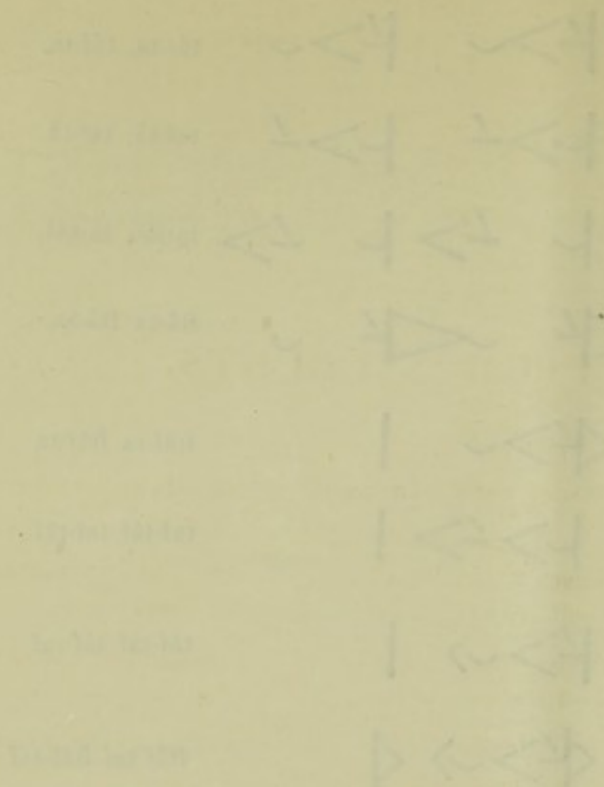
Hutchison & Rainy's Clinical Methods.

Jakob's Atlas and Epitome of Clinical Diagnosis.

FOR HOME USE :

Sahli's Diagnostic Methods.

Butler's Diagnostics of Internal Medicine.



Left hand
Right hand
Left hand
Right hand
Left hand
Right hand
Left hand

The graphic representation in A and B is the left and right hands of the body. The graphic representation in C and D is the left and right hands of the body.

THE GRAPHIC REPRESENTATION OF THE HUMAN BODY

TEXT BOOK

For general use
 For the study of the human body
 For the study of the human body
 For the study of the human body

CLINICAL MANUAL

For the study of the human body
 For the study of the human body
 For the study of the human body
 For the study of the human body

REQUIREMENTS FROM STUDENTS.

The due performance of the foregoing demands from the Student :

- (a) The taking of a **History** of each case along lines such as those laid down in the Guide (paragraphs I, II, III).
- (b) The preparation from Text Book of **Synopses** of the Pathology, Etiology, and Symptomatology of specified diseases, and their bedside applications to actual cases under observation.
- (c) The bedside use of one of the **smaller Clinical Manuals** for purposes of Clinical examination, along lines such as those laid down in the Index.
- (d) The home study of one of the **larger Clinical Manuals** for the understanding of the meaning of Clinical terms and methods of Clinical procedure.
- (e) The home study of **Text Books** in regard to questions of Diagnosis, Prognosis, Clinical History and Treatment, and their bedside application to actual cases under observation
- (f) A prompt, careful, and continuous **Record** of all the pertinent facts observed.
- (g) Continuous **Clinical Work** in the Wards for some hours daily, supplemented (wherever desirable and available) by further investigations in the P.M. Room and in the Pathological and Bacteriological Laboratory.

THE BASIS—SELF-TEACHING.

The whole scheme of Clinical Study thus outlined is totally opposed to any system of spoon-feeding. It pre-supposes, of course, expert guidance, and adequate means, and material. But it provides, simply, an accredited plan of campaign, and it requires the student to teach himself. Only thus can he attain his maximum Clinical efficiency.

REQUIREMENTS FROM STUDENTS.

- The following are the requirements for the degree:
- (1) The student of a History of each case shall have such as those laid down in the Guide (paragraphs I, II, III).
 - (2) The preparation of a Test Book in Synopses of the Pathology, Etiology, and Symptomatology of specific diseases and their clinical application, and in which cases under observation.
 - (3) The student use of one of the smaller Clinical Manuals for purposes of Clinical examination along with such as those laid down in the Guide.
 - (4) The same study of one of the larger Clinical Manuals for the understanding of the meaning of Clinical terms and methods of Clinical procedure.
 - (5) The same study of Test Books in regard to questions of Diagnosis, Prognosis, Clinical History and Treatment, and their relation to symptoms in actual cases under observation.
 - (6) A prompt, careful and complete Record of all the patients cases observed.
 - (7) Continuation of Clinical Work in the Hospital for some hours daily, supplemented (where possible) and available by further investigations in the U. M. Room and in the Pathological and Anatomical Laboratory.

THE BASIS SELF-TEACHING.

The whole of the Clinical Study that outlined is mainly applied to any form of self-teaching. It presupposes of course, correct grammar and adequate maps and material. This is provided by an excellent text book, and it requires the student to work himself. Only this can be done, the common Clinical studies.