

A code of rules for the prevention of infectious & contagious diseases in schools / issued by the Medical Officers of Schools Association.

Contributors

Medical Officers of Schools Association.

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A CODE OF RULES
FOR THE
PREVENTION
OF
INFECTIOUS & CONTAGIOUS DISEASES IN SCHOOLS

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A CODE OF RULES
FOR THE
PREVENTION
OF
INFECTIOUS & CONTAGIOUS DISEASES IN SCHOOLS

ISSUED BY
THE MEDICAL OFFICERS OF SCHOOLS ASSOCIATION

FOURTH AND ENLARGED EDITION

London
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PREFACE TO THE FOURTH EDITION.

OBSERVATIONS accumulated during the eight years — fruitful in advancing knowledge — which have elapsed since the last edition of the Code was issued, have demonstrated the desirability of making certain alterations in some of its recommendations. The occasion has been seized for again revising the whole work: with the result that almost every paragraph has been practically recast, although this has been accomplished without any material alteration in its form as a whole.

Numerous modifications of detail have been made in order that the general and special sanitary measures recommended might be brought into line with the hygienic teaching of the day; and the Appendix on Disinfection has been materially altered and extended.

The “Quarantine Periods” allotted to Scarlatina and to Small-pox have been reduced: and attention is drawn to the fact that this “quarantine” of a person who has been exposed to infection is both uncertain and inadequate, unless care be taken—by insisting on disinfection of the person and of the clothing at the commencement of the quarantine—to ensure against his becoming infected by fomites during that period.

It is now recognised that patients suffering from German Measles may, with safety to others, resume their ordinary avocations within ten days from the appearance of the rash; and a similar limit applies to

the common infectious exanthem which frequently bears a close resemblance to *Rubella*, and for which the term *Epidemic Roseola* has been retained as a convenient synonym.

An important note has been added on Diphtheria, and the paragraphs relating to "Ophthalmia" have been re-written, as the outcome of recent bacterioscopic investigations.

With regard to some changes in nomenclature, it should be mentioned that a representation from the Council of the Association—presented by its then President, Dr. Howship Dickinson, to the Nomenclature Committee of the Royal College of Physicians—resulted in the adoption of *Rubella* and *Morbilli* as the official synonyms of the diseases known as German Measles and Measles respectively. The three maladies—Measles, German Measles, and Epidemic Roseola—are now, therefore, distinguished by official titles which quite obviate the previously existent confusion.

In view of recent changes in legislation, the Association has felt it a duty to insist on the paramount importance of securing the efficient vaccination (and, at the proper age, the re-vaccination) of every child admitted to a school.

After careful consideration of the subject, it has not been thought expedient to adopt the suggestions which were received from various quarters, to the effect that Influenza should be included amongst the maladies for which the Code prescribes definite periods of isolation and quarantine. During the last decade a mass of important observations on the disease has been accumulated by the medical officers of schools and others. But, beyond the assurance that—in its more

virulent forms—the period of incubation often appears to be extremely short, and that a person suffering from it may be most actively infectious, while the immunity conferred by an attack may vary greatly in duration in different cases, the ascertained facts are not yet such as to admit of their being usefully summarised for precise and universal application.

In relation to another matter now deservedly engaging public attention, it will be observed that the Code makes no specific mention of Tuberculosis. While, however, the various sanitary details therein recommended must be regarded as including an important part of the prophylaxis against this form of disease, it is obvious that special directions for the quarantine and isolation of tuberculous patients would be out of place amongst rules applicable to the management of British schools as these are at present constituted and administered. In this respect the malady in question falls into the same category as Enteric Fever—with which, again, it has not been deemed advisable to deal specially in the Code, because any attempt to do so in such a work as this could only result in directions either inadequate or superfluous.

The Association has in the past received many proofs of the satisfaction with which its Code has been accepted by both the professional and the lay public: and some years since it was gratified by observing that the then Minister of Public Instruction in France had adopted all its more important recommendations with regard to infectious diseases, and had officially applied them to the management of the public educational establishments throughout that country.

The work of revising the previous edition of the Code, and of embodying in its present form the many

alterations and additions which appeared called for, was entrusted by the Council to a Committee consisting of Dr. Abercrombie, Dr. Louis Parkes, and the Honorary Secretaries. This Committee held several protracted meetings, and devoted a large amount of time to the work, including a full consideration of the various valuable suggestions submitted by many members of the Association and others specially interested in the subject. The Council takes this opportunity of expressing its cordial appreciation of the painstaking care with which this Committee has fulfilled a task involving no inconsiderable amount of labour, and calling for the exercise of much discriminating judgment.

The Council is most anxious to keep the teaching of its Code abreast with the approved medical and hygienic knowledge of the age; and it trusts that the time and labour which have been expended on the preparation of the present edition may serve to maintain its position as an authoritative and trustworthy manual of reference for all those interested in the admittedly important questions with which it attempts to deal.

HOWARD MARSH, *President.*

II, CHANDOS STREET,
CAVENDISH SQUARE,
London, W., 1899.

PREFACE TO THE FIRST EDITION.

IN bringing this Code of Rules before the general public, and the Medical and Scholastic professions in particular, the Medical Officers of Schools Association desire to say a few words as to its compilation.

On the formation of the Association in 1884, one of the most urgent matters which forced itself to the front, as claiming immediate attention, was the need for the general adoption of more definite rules for guarding our great educational establishments from the outbreak and spread of preventible infectious disease.

With this object an attempt was made to ascertain the rules and customs which are at present enforced in such cases, by circulating to every school of any importance in the country an elaborate series of questions covering the ground of this enquiry.

The replies thus obtained proved very interesting, and contained much valuable material; at the same time they revealed wide differences of procedure in different institutions when dealing with the same conditions of disease, and, in some instances, a considerable laxity of precaution. Nothing could more clearly demonstrate the necessity for some definite and generally recognized standard of School Hygiene than the curiously divergent character of many of the answers furnished in response to our paper of questions on the commoner epidemic diseases.

In the course of their deliberations on the information thus collected, the Association have embodied

opinions and suggestions from many special authorities on the several questions dealt with. It is hoped that the result of these labours may prove no less useful to parents and guardians, who deal with the home life of the children, than to the school authorities, since without the sympathy and intelligent co-operation of the former no real progress can be made in this great department of preventive medicine, which is fraught with so much benefit to the community at large.

The Medical Officers of Schools Association cannot allow this Code to go forth to the public without placing on record the great debt of gratitude which they owe to their indefatigable Secretary, Dr. ALDERSMITH, the Medical Officer of Christ's Hospital. This Code is to a very large extent based on the valuable paper on "*The Preventive Treatment of Infectious Diseases in Public and High Schools*," read by him at the *Conference on School Hygiene*, at the International Health Exhibition. The extensive correspondence involved in communicating with a very large number of schools and of individuals in all parts of the kingdom, has been entirely in his hands; upon him devolved the heavy labour of comparing and collating the replies received from the various authorities consulted; and upon him, too, has fallen the duty of preparing this work for the press.

C. J. H. EVATT, M.D.,
Surgeon-Major Army Medical Staff,
President M.O.S.A.

WOOLWICH,
January, 1885.

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A CODE OF RULES
FOR THE
PREVENTION
OF
INFECTIOUS AND CONTAGIOUS DISEASES IN SCHOOLS
ADOPTED BY
THE MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.

SECTION I.
GENERAL HYGIENE.

I. **GENERAL HYGIENE.**—All the **hygienic arrangements** of the school—if not certainly known to be in accord with modern sanitary science—should be thoroughly inspected by a competent person, and any defect remedied as soon as possible.

Amongst other essentials, the following points require special attention, viz.:—

2. That all **drains** are efficiently ventilated, and cut off Drainage. from the sewer by a disconnecting man-hole chamber with fresh-air inlet.

3. That all **soil pipes** are efficiently ventilated by Soil pipes. carrying them (full bore) above the top of the buildings, and not near to any window or chimney.

- Joints. 4. That **the joints** of all soil pipes and soil pipe branches are air- and water-tight ; and that soil pipes are fixed outside the buildings.
- Closets. 5. That **pan-closets** are replaced by closets of improved construction, which do not allow of the accumulation of sediment or of sewer gas. It is desirable that closets should be placed in detached or semi-detached buildings efficiently ventilated from the outer air, and not in the *basement* of the school.
- Drains. 6. That no **drains** pass under the school buildings.
- Earth closets. 7. That, in localities where there is no efficient drainage, **earth-closets** may be adopted, and should be placed in detached buildings (*vide* 5, *supra*).
- Cesspools. 8. In exceptional cases, where a **cesspool** must exist, this should be placed no nearer to a dwelling house than fifty yards ; its ventilation must be effected by pipes of sufficient height, not less than four inches in diameter, and opening in a safe situation ; it must be cemented inside, and clay-puddled outside ; and must be so large as to allow of its being emptied during the vacations only.
- Overflow and waste pipes. 9. That all **overflow, rain-water, and waste pipes** discharge in the open near or over properly trapped gullies.
- Dust-bins. 10. That no fixed **dust-bins** be permitted, but that the daily dust and refuse be removed to a distance in properly covered pails or metallic boxes.
- Drains to be flushed. 11. That all **drain gullies** be flushed at regular intervals ; as otherwise the water in the traps may dry up, and drain air thus escape.
- Repairs. 12. That when any **sanitary repairs** or alterations become necessary, they should, unless immediately required, be done during vacation time, and under skilled supervision.

Separate establishments for younger and for older pupils.

II. **SENIOR AND JUNIOR SCHOOLS.**—In schools where there is a large number of pupils greatly varying in age, it is a good plan to have

two distinct establishments in separate localities, one for pupils under eleven or twelve, and another for pupils above that age. By this arrangement epidemics (especially of measles) may generally be restricted to the junior school; and thus the more important work of the senior school does not suffer.

III. **MEDICAL RESPONSIBILITY.**—A most important precaution towards the prevention of and the dealing with infectious disease in schools, is **undivided medical responsibility.**

2. Therefore one Medical Man, and one only, should have the entire school, including all masters and servants and their families, under his medical supervision. He should have full control regarding the entrance into the school of all boys who are known to have recently had any illness, or to have been exposed to infection, as also over the whole arrangements for quarantine and disinfection; being responsible only to the Governing Body.* He should also have power to act immediately, if any sanitary measures are urgently needed.

3. The Medical Officer of the school should **periodically inspect** the entire school premises; and in the case of Public Schools, should send in a report to the Governing Body, pointing out any alterations desirable from a sanitary point of view.

4. An **annual return** of school illnesses from the Medical Officer to the Governing Body of the School is very desirable.

* Whatever its actual composition in different cases, the Governing Body is here taken to include the Head Master of the School.

Water.

IV. **WATER SUPPLY.**—Whatever its source may be, the **water supply** must certainly be above all suspicion. When any well-water is used, the surroundings, and possible contaminations by cesspools, drains, and deposits of foul matter in its vicinity, ought to be investigated. It is also advisable to have the well regularly inspected and the water periodically analysed (chemically and bacterioscopically)—and this not always at the same season of the year.*

2. In all instances the **drinking water** should be obtained from pipes on a constant service, or (if the supply be intermittent) from cisterns distinct from those supplying water-closets, urinals, and slop sinks.

Cisterns.

3. All **cisterns** (which should be properly covered) must be frequently inspected and periodically cleansed.

4. If **filters** be used, they should be of the sterilising type.

Milk and Food.

V. **MILK AND FOOD SUPPLY.**—The **milk** should be obtained from a trustworthy source, preferably from a dairy under the control of the School Authorities.

2. The school **dairy**, the dairy farm, **the milk**, and the **food supplies** generally, should be inspected at intervals by the Medical Officer of the school, who should also from time to time visit the dining-halls and kitchen so as to satisfy himself that the food is properly cooked and served.

Laundry.

VI. **LAUNDRY.**—Every large school should have its own **laundry**. If this be impossible, precautions should be taken to prevent linen from other sources being washed with the school linen.

* In cases in which the slightest suspicion of contamination exists, an analysis ought to be made at least every month.

SECTION II.

THE INFIRMARY & THE SANATORIUM.

VII. **INFIRMARY.**—A large school should Infirmary. possess a good detached **Infirmary**, to which *all** cases of illness should be sent, and in which infectious cases can be isolated. It should be large enough to provide ample accommodation, with sufficient cubic space† and good ventilation. Whatever the construction and arrangements may be,‡ it is of the utmost importance that the *infectious wards* (with nurses' apartments, bath, lavatory, and small kitchen) be isolated as far as possible from the rest of the building.

VIII. **SANATORIUM.**—Whenever practicable, there should be a separate building (**Sana-** Separate building for infectious diseases. **torium**) for infectious diseases.

* Unless a Sanatorium exists for the reception of cases of infectious illness.—*Vide* VIII., *infra*.

† Not less than 1,500 cubic feet for each infectious case, and not less than 1,000 cubic feet for each non-infectious case, with corresponding floor space.—*Vide* "The Construction and Maintenance of School Infirmaries and Sanatoria," p. 19 (*b*) for Infirmaries, and p. 39 for Infectious Wards, and Sanatorium, with its footnote.

‡ *Vide* "The Construction and Maintenance of School Infirmaries and Sanatoria"; and "The Arrangement and Construction of School Sanatoria," issued by the Association.

Infectious
wards.

2. If there be not two separate buildings, the **infectious wards** should be at the *top* of the Infirmary, and approached by a separate well-ventilated staircase, with doors at the top and the bottom.

3. One of the **infectious wards** should always be in readiness ; and during the cooler months, warmed. This can be managed by open fires ; but the best plan is to have in addition hot-water pipes, which can be so arranged as to keep the wards at a given temperature and the mattresses aired and ready for use.

Games and
Books.

4. It is necessary to supply each class of infectious patients with a **separate set of books** and **games** for their exclusive use.

Sick Room.

IX. **SICK ROOM.**—In small schools there ought always to be one or more “**sick-rooms,**” sufficiently large and well ventilated, *situated at the top of the house*, and isolated as completely as possible.

Slight ailments to be
reported.

2. Any pupil suffering from headache, sickness, or sore throat, should be sent to the Infirmary without delay. Pupils should be required to report the slightest ailment *at once* to the House Master, Matron, or Medical Officer.

SECTION III.

MEDICAL EXAMINATION OF SCHOLARS
ON ADMISSION, &c.

X. **ENTRANCE CERTIFICATES.***—A **Certificate** should be required on the entry of each pupil, signed by the parent or guardian not earlier than the day before the admission, stating that, “to the best of his or her knowledge and belief, the pupil has not, for at least three weeks, been exposed to any infectious disease, or entered any house where such disease existed” (and then should follow a list of these diseases, viz., scarlatina, measles, &c., as per Rule XIII.; so that no mistake can be made). If this assurance cannot be given, notice must be at once forwarded to the school authorities. The pupil, his or her clothes, &c., having been disinfected,† should then be sent away to some house free from infection for quarantine, in accordance with the school regulations (*vide* Rule XIII. p. 19), and the disinfection of the pupil and of the clothes should be repeated at the end of the specified time of quarantine.

* *Vide* Appendix A.

† This is of especial importance after exposure to scarlet fever, small-pox, or diphtheria.

Certificates
required on
admission.

2. It is also desirable to request immediate notice to be given to the School Authorities by the parents or guardians in the event of any case of infectious disease occurring in their house within three weeks of the entry, or the return, of a pupil to school. A request to this effect should be printed on the certificate form. (See pp. 34 and 35.)

Primary of
Entrance
certificate.

3. The infectious diseases which the pupil has already suffered from should be recorded on this **primary certificate**, and the paper kept for future reference.

Examination
on admission

4. In all schools it is advisable for the Medical Officer to make a **physical examination** of each pupil on entrance. In all junior schools, a special examination of the scalp should be made for **ringworm**; an examination should also be made for vaccination marks, and if these be absent or unsatisfactory, immediate vaccination should be insisted upon. In every case, when the pupil has reached the period of puberty re-vaccination should be advised.

5. It may be advisable to examine the eyelids of every child on admission to a school, so as to exclude cases of **Trachoma**.[¶] In certain institutions—for example, those of the parochial class—such inspections should be repeated at intervals of a few months.

And at the
beginning of
each term.

XI. TERM CERTIFICATES.—When a pupil goes home for the holidays, a **Certificate Form** should be sent to the parents or guardians (see Form No. II., p. 35), accompanied by a notice stating that the certificate, duly signed, must be presented by the pupil on returning to school. If the pupil fall ill, or if he be exposed to any infection during the vacation, *immediate* notice of the facts must be sent to the School Authorities, and on no account is the pupil to return to school until

after permission has been obtained from them. Those pupils who return without their certificates should be at once sent to the Infirmary, and there examined by the Medical Officer; who should have the power to take whatever steps he considers desirable.

2. During term-time pupils are apt to take infectious ^{Exeats.} diseases when on "exeats." Parents should therefore be warned by the School Authorities not to have their children home when there is even a suspicion of infectious disease in their own homes, nor should the children be allowed to enter any house where such exists. When a pupil has been exposed to any infection, the necessary quarantine, with disinfection, should be rigidly insisted upon. (See foot-notes, pp. 19 and 22.)

XII. **QUARANTINE PERIOD**—The period ^{Quarantine after exposure to infection.} of quarantine which should be insisted upon when a pupil has been exposed to an infectious disease, depends chiefly upon whether the clothes have been efficiently disinfected *at the beginning* of the quarantine.

2. The quarantine should be at least two days longer than the recognised period of incubation of the disease in question.

XIII. **QUARANTINE.** — The following ^{Length of quarantine.} quarantine times, dating from exposure to infection, may be considered safe *if disinfection be carried out at the commencement of the quarantine* :—

Chicken-pox (<i>Varicella</i>)	20 days' quarantine.
Diphtheria *	12 „ „
German Measles † (<i>Ru-</i> <i>bella</i>) and Epidemic Roseola	20 „ „
Measles (<i>Morbilli</i>)	16 „ „
Mumps (<i>Parotitis</i>)	24 „ „
Scarlet fever (<i>Scarla-</i> <i>tina</i>)	10 „ „
Small-pox (<i>Variola</i>)	16 „ „
Whooping-cough (<i>Per-</i> <i>tussis</i>)	21 „ „

Home
disinfection

2. Home disinfection should be supplemented by personal disinfection of the pupil, and of the clothes, books, and *everything* brought back by him immediately on his return to school. (See p. 19.)

* It is desirable that a **bacterioscopic examination** of the throat-mucus be made, not earlier than the eighth day of the quarantine period, and the result reported to the School Authorities. A similar rule of quarantine applies to, and a like procedure should be followed in the case of every nurse who has been attending on a case of diphtheria, before she is permitted to resume her ordinary duties.

† The use of this term (German Measles) might be discontinued with advantage, so as to obviate its confusion with (true) Measles.

SECTION IV.

GENERAL PRECAUTIONS AGAINST THE INTRODUCTION AND SPREAD OF INFECTIOUS DISEASE.

XIV.—**INFECTIOUS DISEASE** existing in a neigh- Neighbouring towns.
bouring town is apt to be introduced into a school
by intercourse with the towns-people. It is
advisable to place the town “out of bounds” if
epidemic disease be prevalent there.

2. **Day pupils** may introduce infection into a boarding Day pupils.
school. Parents should therefore be specially warned not
to send their children to school if there be any suspicion of
infectious disease existing in their homes. Infectious
complaints are often communicated by the clothes of those
who have been in contact with infected persons.

3. A case of infectious disease occurring in the **family** Infectious disease in masters' houses.
of a master or of any **official** connected with the school
should be immediately reported to the School Authorities,
and the patient should be isolated. The master or officer
should undergo personal disinfection before resuming work
in the school, and—if deemed necessary—live away from
his house so long as infection persists there (particularly
if the case be one of scarlet fever, diphtheria, or small-pox).

4. All **servants, tradesmen,** or other persons having Notice of illness to be given at once to the Medical Officer.
access to the school premises should be required to give
immediate notice of the outbreak of infectious disease in
their houses to the Medical Officer, and to abide by his
instructions.

SECTION V.

MEASURES TO BE ADOPTED WHEN INFECTIOUS DISEASE APPEARS IN A SCHOOL.

Removal and
isolation.

XV. REMOVAL AND ISOLATION.—

Directly a case of infectious disease has been recognised* it should be isolated in the **infectious ward** or in the **Sanatorium**. (*Vide* Rule VII.)

2. One of the ordinary nurses should take sole charge ; or a special nurse may be obtained for this purpose.

Isolation of
nurses in in-
fectious ward.

3. **The nurses** in the infectious ward or Sanatorium must be kept completely isolated from the nurses and servants in the Infirmary. **The food**, if not prepared in a separate kitchen, should be placed outside the door of the ward, and afterwards taken in by the nurse.

Scraps from
ward.

4. Food, and **refuse** of all kinds, should not be sent away from these wards, but should be placed in a suitable closed receptacle and taken away to be **immediately burnt**. **The crockery** should be washed in disinfectants before leaving the ward. All possible precautions should be taken to prevent the spread of infection, which may occur through the neglect of apparently trivial details.

Letters, &c.

5. The nurses in charge of the infectious wards or Sanatorium should take care that patients do not throw **paper balls**, **letters** or anything out of the windows.

6. **Letters**, if *allowed at all*, coming out of the infectious wards should be disinfected† before they are posted.

* For the *Notification* of cases of infectious disease, see Appendix B., p. 38.

† *Vide* Appendix C, VII., p. 42.

XVI. REMOVAL OF BEDDING, &c.—

The next step is to **remove the bedding** (if not already sent with the patient to the infectious ward or Sanatorium), clothes, books, and everything that is likely to harbour infection, to be disinfected. This should be done as early as possible. Measures should also be taken for disinfecting the sleeping place occupied by the pupil in his dormitory. (*Vide* Appendix C.)

Removal of bedding and clothes for disinfection.

2. **Notice** should at once be given to the matrons or others in charge of the pupils to carefully watch for any symptoms of illness, and to send any child looking ill to the "sick-room" or to the Infirmary.

Notice to Matrons.

XVII. DISINFECTION OF ROOM.—

After the patient has been isolated, the "**sick-room,**" or the room which the pupil occupied on first coming into the Infirmary, should be disinfected (*vide* Appendix C), before any other pupil is allowed to enter it. The bedding also should be disinfected, unless it has been removed with the patient: and, if any other case occurs, the same precautions should be adopted.

Disinfection of sick room.

XVIII. DISINFECTION OF BEDDING.—

The **mattresses and bedding** used in the infectious ward should be disinfected before being again employed. All linen should be disinfected

Of bedding and linen in the infectious ward.

before it is sent to the laundry, and should be *boiled* apart from the other linen washed there.

2. The **infectious ward** should be disinfected after each time of use.

Ambulance. 3. Schools having separate boarding houses ought to have **an ambulance**, which should be disinfected immediately after removing any infectious patient.

Isolation until
free from
infection.

XIX. ISOLATION UNTIL FREE FROM INFECTION.—All patients ought to be retained in the infectious ward of the Infirmary, or in the Sanatorium, until free from infection (*vide* Rule XXI.), and, before leaving, they and their clothes must be disinfected.

Doubtful
cases of
scarlet fever.

XX. DOUBTFUL CASES OF SCARLET FEVER.—One of the most anxious and difficult of the problems which confront the Medical Officer concerns the diagnosis and management of **doubtful cases of scarlet fever**. Only those who have had actual experience can adequately realize the frequency with which such cases occur, and the great difficulty of dealing with them. The ideal method would be to isolate each suspicious case in a separate room, and keep it under observation. But this is seldom possible. All such cases may be placed in a large, well-ventilated ward, careful observation being maintained with a view to the immediate

isolation of any case developing characteristic symptoms.

2. No doubtful cases should be sent back to the dormitories ; and the clothing and bedding of such should be disinfected.

XXI. WHEN FREE FROM INFECTION.—How soon a patient may return home or to school after having had an infectious disease. With regard to that most important question, “When may a pupil who has had an infectious disease go home, or rejoin the school?”—the following are safe rules to adopt, provided patient and clothes have been disinfected. (*Vide* Appendix C.)

A pupil may go home, or rejoin the school,* after :—

Chicken-pox (*Varicella*).—When every scab Chicken-pox. has fallen off, particular attention being paid to the scalp.

Diphtheria.—In no case in less than four weeks, Diphtheria. provided convalescence is completed, and that there is no longer any sore throat, or any abnormal discharge from the throat, nose, ears or eyes, and no albuminuria†; and that bacterioscopic examination of the pharyngeal (or nasal) mucus for the

* The periods named in this connection refer to freedom from infection ; and it is obvious that a patient, if free from infection, might be sent home from school, or leave home for change of air, before his health was so re-established as to justify his resuming work at school,

† With regard to persistent albuminuria, each case must be judged on its own merits.

specific bacillus has been attended with negative results ; this examination having been made in not less than three days after the discontinuance of local antiseptic applications.

German
measles ;
Roseola.

German Measles (*Rubella*), and **Epidemic Roseola**.—In not less than ten days from the date of the appearance of the rash.

Measles.

Measles (*Morbilli*) —In not less than two weeks from the date of the appearance of the rash, convalescence being satisfactorily established.

Mumps.

Mumps (*Parotitis*).—In not less than three weeks from the commencement—provided that one clear week has elapsed since the subsidence of all swelling.

Ophthalmia.

Ophthalmia.—Every case of **acute conjunctivitis** should be isolated, pending precise diagnosis. The latter can in many instances be made with certainty only by a bacterioscopic examination of the discharge from the conjunctiva.

Trachoma.

In **chronic conjunctivitis** a distinction should be made between two conditions that somewhat resemble one another, namely, Follicular Conjunctivitis and Trachoma (Granular lids). The former is common among children of the poorer class, and is not a serious ailment. The latter is an infectious disease, always calling for prolonged isolation and special treatment. If neglected it is apt to affect the cornea, and thus damage sight.*

* *Vide* "School Ophthalmia," published for the Association by Messrs. Churchill. Price 1s.

Ringworm (*of the head*).—When—the *whole* Ringworm.
scalp having been examined in a good light and any suspicious spot scrutinised with a lens—not one broken-off hair showing the fungus of any of the forms of ringworm is to be detected by *careful* microscopic examination.

2. It is sometimes considered that ringworm is cured when the hair commences to grow on the affected areas, but this is not necessarily true, for it frequently happens that diseased broken-off hairs remain; and the malady may thus persist for months or years. It is often very difficult to detect the short diseased stumps which protrude only an eighth of an inch or less, and it is important not to mistake closely cut *healthy* hairs for diseased stumps.

Scarlet Fever (*Scarlatina*).—In not less than Scarlet fever.
six weeks from the date of the appearance of the rash, provided convalescence is completed and desquamation has ceased, and there is no sore throat, discharge from the ear, suppurating glands, or eczematous patches. (With regard to Albuminuria, *vide* footnote p. 27.)

Small-pox (*Variola*).—When every scab has Small pox.
fallen off, and the skin lesions have all healed.

Whooping-cough (*Pertussis*).—In not less Whooping-cough.
than five weeks from the commencement of the whooping, and provided that the characteristic spasmodic cough and the whooping have ceased for at least two weeks.

Parents to be promptly informed of their children's illness.

XXII. NOTICE TO PARENTS.—In every case of serious illness the **parents** or **guardians** of the pupil should be at once informed of it. It is most desirable, in replying to enquiries made by parents with respect to any case of serious illness occurring in a school, that the precise terms used by the Medical Officer in describing the nature or the progress of the malady should be communicated, either directly by him, or through the House-master.

Breaking up a boarding school is only rarely advisable.

XXIII. THE DISPERSION OF A SCHOOL on account of an outbreak of infectious disease is always a serious step to take, and should very rarely be required. It may lead to a wide-spread distribution of the disease. If a serious outbreak of scarlet fever or of measles, especially if the cases be of a malignant type; or an outbreak of enteric fever, or of diphtheria occur, notice should be sent to the parents or guardians of all the pupils as yet unaffected, thus giving them the option of removing their children, should they see fit to do so.

2. In the opinion of the Association* a serious outbreak of infectious disease in a school affords a sufficient justification for the temporary removal of healthy children by their parents or guardians, should they see fit to take this step;

* One of the "Special Resolutions" passed by the Council on July 22nd, 1886, and subsequently confirmed by the Association.

but the onus of removing the pupils should rest with the parents, and not with the School Authorities. The latter should rarely go beyond advising parents to take away their children.

3. To order a school to be dispersed is a very responsible proceeding, and should not be done unless the mischief is kept up by some local cause *which can be remedied only when the pupils are away*. Thus, if an outbreak of enteric fever or diphtheria occur, and it is certain that the cause is known and can at once be removed, it will not be necessary to break up the school ; but if, on the other hand, doubt exist as to the origin, or if the cause cannot be immediately remedied or removed, then the school should be dismissed as soon as possible.

4. Similar objections apply, with some reservations, to the breaking up of Day Schools. If dispersion be carried out at all, it is probably best undertaken at the very earliest period of the outbreak of an epidemic—after consultation with the Medical Officer of Health, whose knowledge of local conditions will materially aid in arriving at a decision.*

5. If pupils are to be sent home, it is necessary to give the parents sufficient time to make the needful arrangements for isolating them ; parents should also be informed by the School Authorities of the period of incubation of the illness ; and whenever possible, the clothes should be disinfected before the pupils leave the school.

It is necessary to give time for isolating pupils.

* The power of a sanitary authority to enforce the closure of a school is contained in the Code of Regulations of the Education Department, Section 88, which prescribes as one of the general conditions requiring to be fulfilled by a public elementary school in order to obtain an annual Parliamentary grant, "that the managers must comply *at once* with any notice of the sanitary authority of the district in which the school is situated, requiring them for a specified time, with a view to preventing the spread of disease, either to close the school or to exclude *any scholars* from attendance, subject to an appeal to the [Education] Department, if the managers consider the notice to be unreasonable."

Duty of school
authorities.

XXIV. DUTIES OF SCHOOL AUTHORITIES.—

Just as it is incumbent on parents and guardians to do all in their power to prevent infectious diseases from entering schools, so it is the duty of School Authorities to take every possible precaution that infectious diseases are not carried by the pupils from the school to their homes. Therefore, if any infectious disease prevails in a school at the end of a term, notice to that effect should be sent to all the parents, stating the nature of the disease and its period of incubation, in order that they may isolate their children on their return home. (*Vide* Appendix A, p. 33, No. VI.)

2. Through the neglect of this simple precaution, children may be taken direct to the sea-side at the end of term, after having been exposed to infection at school, and the parents, being unaware of this exposure, are put to the trouble and expense incidental to the illness developing in their children whilst away from home.

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H. ALDERSMITH,	} <i>Honorary</i>
CHARLES E. SHELLY,	
	} <i>Secretaries.</i>

APPENDIX A.

The following Forms of Certificates are recommended with
reference to the Prevention of Infectious Diseases in Schools.

HEALTH CERTIFICATE. (FORM NO. I.)

[To be presented before admission into a school.]

This Certificate must be filled up and signed by the Parent or Guardian, not earlier than the day before the child is sent to the school. The suppression of important information, as to past or present health, or as to exposure to infection, is liable to be regarded as a breach of contract.

Name..... Age

1. Has the pupil been successfully vaccinated? If so, when?.....
2. Has the pupil had Chicken-pox? If so, when?.....
 - Diphtheria? If so, when?.....
 - German Measles?... If so, when?.....
 - Epidemic Roseola?. If so, when?.....
 - Measles?..... If so, when?.....
 - Mumps?..... If so, when?.....
 - Ringworm? If so, when was it
certified to be
cured?
 - Scarlet Fever? If so, when?.....
 - Small-pox? If so, when?.....
 - Whooping-cough?.. If so, when?.....

3. Has the pupil had fits? If so, when?.....
 been ruptured?..... If so, when?.....
 had any discharge from
 the ear?..... If so, when?.....
4. Is the pupil subject to any special form of illness, *e.g.*,
 incontinence of urine?
-
5. Does the pupil suffer from any ailment, or constitutional
 peculiarity, affecting the general health, sight, hear-
 ing, &c., &c.?
-
6. Are the teeth in good order?

I hereby certify that, to the best of my knowledge and
 belief, the above-named.....has not, during
 the past three weeks, been exposed to any infectious disease
 (including *Chicken - pox*, *Diphtheria*, *German Measles*,
Epidemic Roseola, *Measles*, *Mumps*, *Ringworm*, *Scarlet*
Fever, *Small-pox*, *Whooping-cough*), or entered any house
 where such disease existed.

.....

Parent (or Guardian).

Date.....

N.B.—If the child, at any time within three weeks before
 the date appointed for joining the school, has been exposed
 to any infection, *immediate* notice of the facts is to be sent
 to the School Authorities; and such child is on no account
 to be sent to the school without permission having first
 been obtained from them.

If, within three weeks of the pupil joining the school,
 infectious illness breaks out in his home, *immediate* notice
 of the facts must be forwarded to the School Authorities.

HEALTH CERTIFICATE. (FORM NO. II)

[To be presented by the pupil on returning to the school after the holidays.]

This Certificate must be filled in and signed by the Parent or Guardian, not earlier than the day before that on which the pupil returns to school. Any suppression or wilful misstatement of important facts will be regarded as a violation of the terms on which the pupil remains at the school, and will render the pupil liable to immediate removal.

I hereby certify that, to the best of my knowledge and belief, has not, for at least three weeks [or,* during the holidays now ending], been exposed to any infectious disease (such as *Chicken-pox, Diphtheria, German Measles, Epidemic Roseola, Measles, Mumps, Ringworm, Scarlet Fever, Small-pox, or Whooping-cough*), or entered any house where such disease existed.

Date.....

.....
Parent (or Guardian).

N.B.—If the pupil be exposed to any infection during the vacation, *immediate* notice of the facts is to be sent to the School Authorities; and the pupil is on no account to return to school without permission having first been obtained from them.

If, within three weeks of the pupil returning to school, infectious illness breaks out in his home, *immediate* notice of the facts must be forwarded to the School Authorities.

* If the holidays have been of less than three weeks' duration.

**Certificates for use in case of Illness and after
Exposure to Infection.**

(FORM NO. III.)

[To be filled in and signed by the Parent or Guardian after the pupil has recovered from infectious illness during the holidays, and when the rules required by the school to be observed in such cases have been complied with.]

I hereby certify that,....., who was taken ill with.....on....., is now considered convalescent by h... Medical Attendant, and that the period, after which you stated (in your letter dated.....) that ...he might return to the School, will expire on..... To the best of my knowledge and belief ...he has not, since the beginning of h... illness, been exposed to any other infection.

Date.....

.....
Parent (or Guardian).

(FORM NO. IV.)

[To be filled in and signed by the Parent or Guardian after a pupil has been exposed to infection, and when the rules applied by the school to such cases have been complied with.]

I hereby certify that....., who was exposed to the infection of.....on or about (as I informed you on.....) will have completed the quarantine period of ... days (in accordance with the terms of your letter of.....) on....., and that during this period ...he has not, to the best of my knowledge and belief, been exposed to the infection of that or of any other disease.

All h... clothes were disinfected at the beginning of the quarantine period.

Date.....

.....
Parent (or Guardian).

....., who was taken ill with .. on
is now convalescent, and is believed to be free from infec-
tion. H... clothes have been disinfected.

 $T_0 \dots$

(FORM No. VI.)

..... { may have been { exposed to the infection
 was

of... .. on or about.....
The incubation period of the disease is about days ;
he should therefore be isolated, or kept under observation,
for at least days, dating from If in good
health at the end of that time, may then be considered
to have escaped the disease ; provided the clothes were
disinfected at the commencement of the period.

*T*₀.....

N.B.—The clothes { have been
ought at once to be } disinfected.

APPENDIX B.

NOTIFICATION OF INFECTIOUS DISEASE

INFECTIOUS DISEASES ACT, 1889.—Section 3 provides that, within every district to which this Act has been made to apply (by a Resolution to that effect passed by the local Sanitary Authority), every medical practitioner “attending on or called in to visit” any patient suffering from

Small-pox,
Cholera,
Diphtheria,
Membranous croup,
Erysipelas,
Scarlatina,
Typhus fever,
Typhoid (enteric) fever,
Relapsing fever,
Continued fever,
Puerperal fever,
or other disease to which the Local Authority may
have extended the Act,

shall, immediately on becoming aware that such patient is suffering from an infectious disease to which the Act applies, send a certificate giving all particulars to the Medical Officer of Health, under a penalty of 40 shillings.

The requisite Certificate Forms are supplied gratis by the Local Authorities, who pay a fee of 2s. 6d. for each certificate thus sent in to them—unless the case occurs in a public institution, when the fee is 1s.

A public school, a college, or a university is *not* "a public body or institution" within the meaning of the Act ; and the fee of 2s. 6d. is therefore due in respect of each case of infectious disease notified as occurring amongst the members of such establishments.

It will be observed that every medical man who, in the exercise of his professional duties (as a consultant or otherwise), sees and recognises any case of the scheduled infectious diseases is, technically, bound to notify, and can claim a fee for doing so. Practically such multiple notification is not insisted on, and a single notification of any case is regarded as a sufficient compliance with the requirements of the Act.

APPENDIX C.

DISINFECTION.

A few suggestions as to the simpler means for effecting Disinfection will not be out of place in connection with the management of infectious cases.

I. — PERCHLORIDE OF MERCURY (a powerful poison) is one of the most efficient disinfectants known, when used in a solution of the proper strength. It may be conveniently employed (1) in the form of L.G.B. "*Soloids*," and similar tabloids, obtainable from all chemists ; (2) as the *St. Bede Disinfectant*. All these preparations are accompanied by full directions for use.

II.—FORMALIN.—Formic aldehyde gas is very efficient as a disinfecting agent for rooms, &c., and may be generated by the *Formogène Richard lamp*, or by the vaporisation of *Paraform tabloids*, by means of a spirit lamp of special construction (the *Alformant lamp*). If the latter be employed, 20 to 40 tabloids should be used to each 1,000 cubic feet of space, and the air should be moist. Before disinfecting, the rooms should be hermetically sealed, as described under "Sulphur" (q. v. *infra*). Formalin solution (2 per cent. in water) is also useful for all disinfecting purposes. "Formalin" contains 40 per cent. of formic aldehyde.

III.—CARBOLIC ACID.—Useful for disinfecting sinks, closets, &c. (a wineglassful to a pint of warm water) ; and

for washing walls, furniture, &c. (a wineglassful to a quart of water), and for soaking soiled infected linen (1 in 20).

IV.—SULPHUR [SULPHUROUS ACID GAS].—For disinfecting unoccupied rooms. Tightly close windows, ventilators, fireplace, &c., pasting slips of paper over all cracks, and stuffing a sack of chaff or shavings up the chimney. Care must be taken to employ *enough* sulphur ($1\frac{1}{2}$ lbs. to each 1,000 cubic feet of space), and, if the room be a long one, the sulphur should be divided into two or more portions. Place roll sulphur (broken into fragments half the size of a walnut) in a tin or iron dish, large enough to hold it all when melted; place the dish on a brick or other support in an iron pail or common earthenware pan; pour some water into the bottom of the pan, to receive any melted sulphur which may run over. If the room be a long one, two or more such dishes must be used. The sulphur is then to be ignited (by pouring a little methylated spirit on to it and lighting it), the door closed and sealed externally with slips of pasted paper, and the room left for twelve hours. The room may then be cautiously entered, windows, &c., opened, fire lighted, and the walls, furniture, &c., washed with the dilute perchloride of mercury or carbolic acid solution, or with hot water and carbolic soap. Tins of compressed sulphur dioxide may be used instead of burning crude sulphur (full directions are given on the tins).

Sulphur-fumigated goods should not be further disinfected by steam.

V.—CHLORIDE OF LIME [Bleaching Powder].—Must be kept in a dry place. Add 1 lb. to 1 gallon of water for sinks, closets, drains, &c. A weak solution (1 oz. to 1 gallon of water) may be used for *quickly* rinsing soiled linen before it is wrung out in clean water.

VI.—CHLORALUM, JEYES' FLUID, IZAL, CREOLINE, PERMANGANATE OF POTASH, CONDY'S FLUID are also useful.

SPRAYS.—Walls, ceilings, and floors of rooms may be disinfected by projecting a spray of Perchloride of Mercury (1 in 1,000), Formalin (2 per cent. of Formalin), or Carbolic Acid (1 in 20), from a suitable apparatus.

DISINFECTION OF CLOTHING.

VII.—STEAM.—All infected clothes and bedding should be submitted to steam disinfection, by means of special apparatus. As leather articles, books, papers, furs, and the more delicate kinds of wearing apparel are liable to be damaged, such articles are better fumigated with sulphur dioxide or formalin, or sprayed with perchloride of mercury or formalin solution.

N.B.—Linen stained by blood or other discharges should be soaked in cold water until the stains are removed before being steam disinfected, otherwise the stains may become permanent.

VIII.—BOILING.—All soiled linen should be *boiled*, or submitted to saturated steam before being sent to the laundry.

N.B.—It is always better to rely on one good disinfectant than to use several in combination ; *e.g.*, neither *carbolic acid* nor *sulphurous acid gas* should be used with Condyl's fluid or chloride of lime.

ALL DISINFECTANTS SHOULD BE REGARDED AS POISONS.

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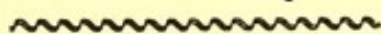
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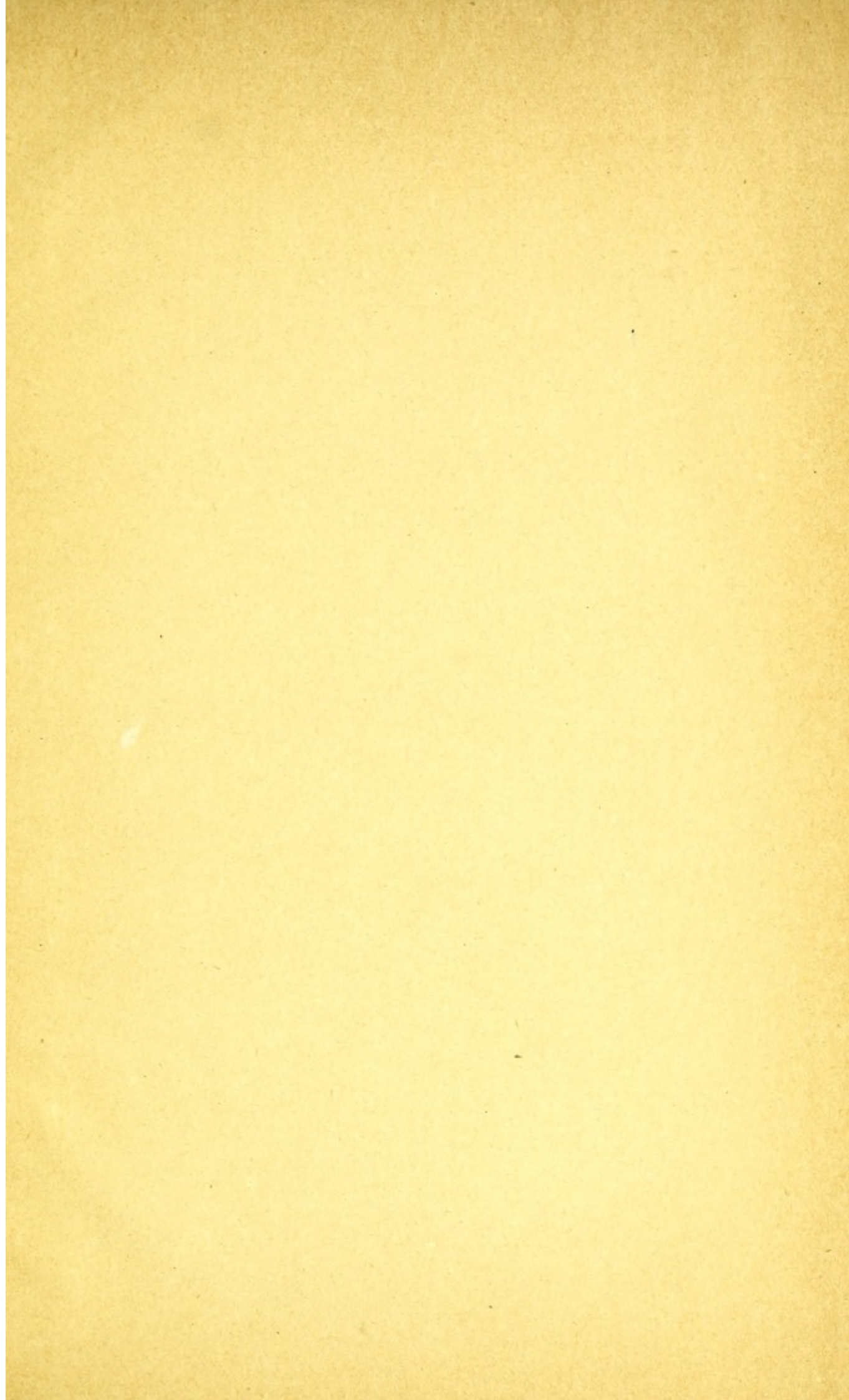
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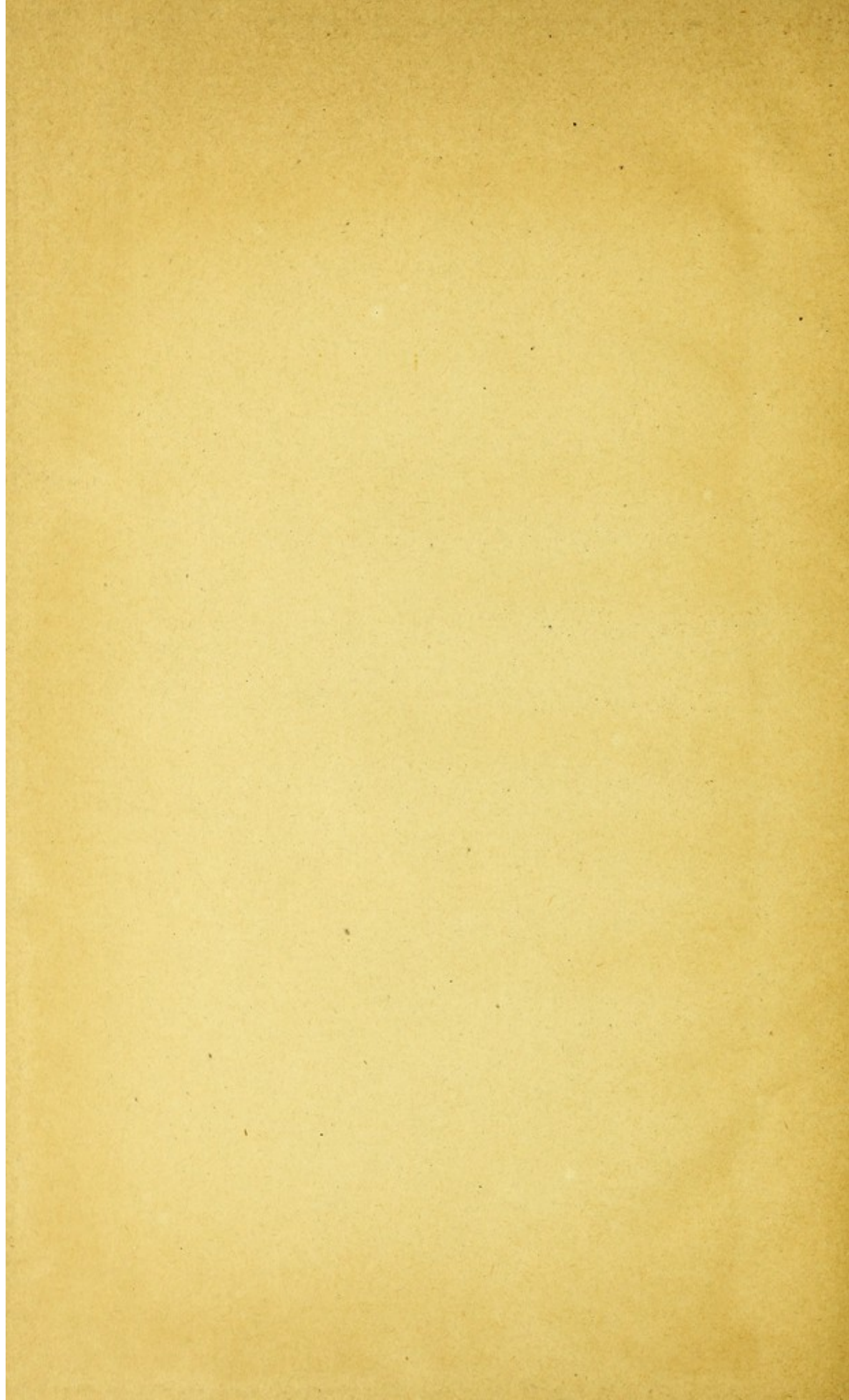
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