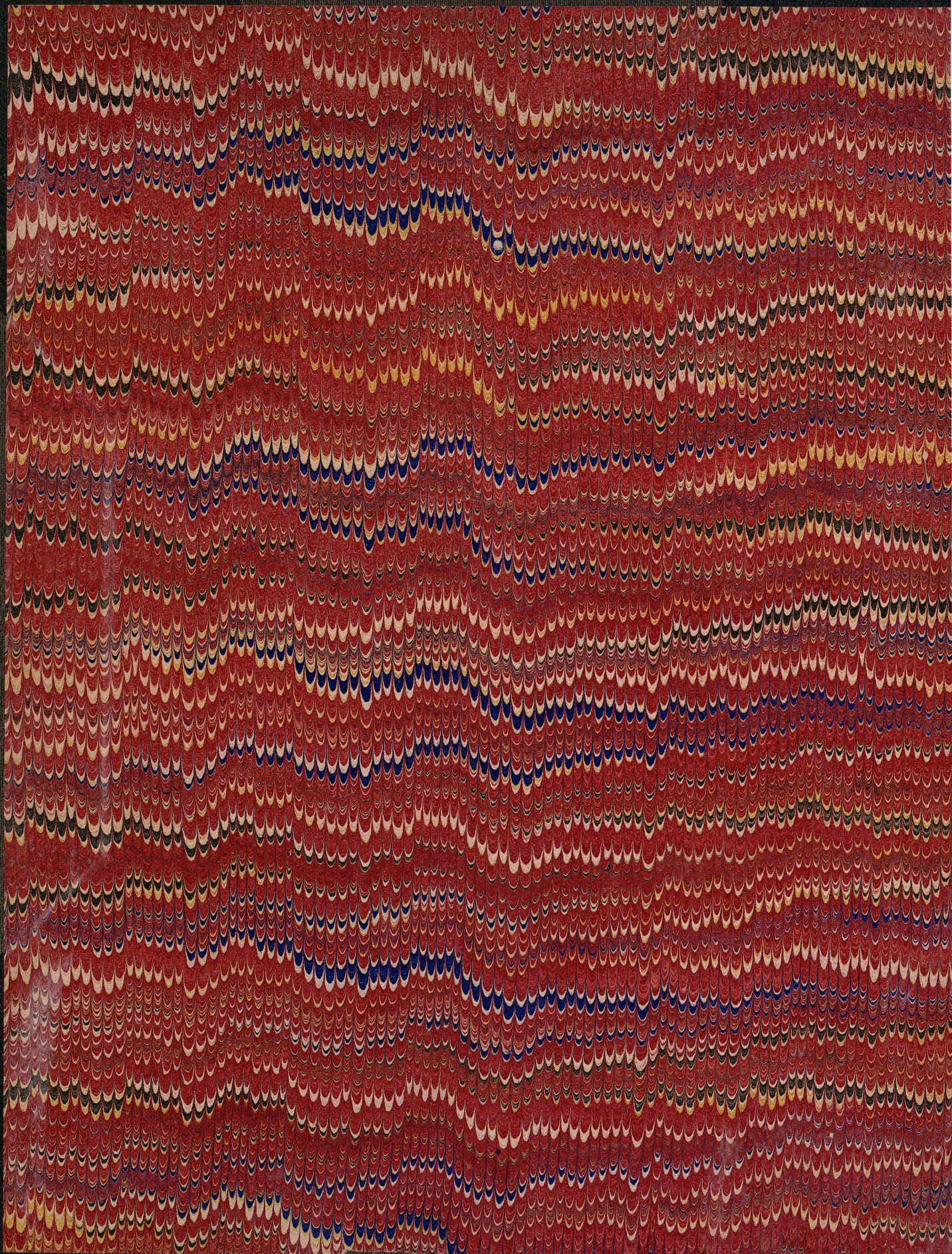
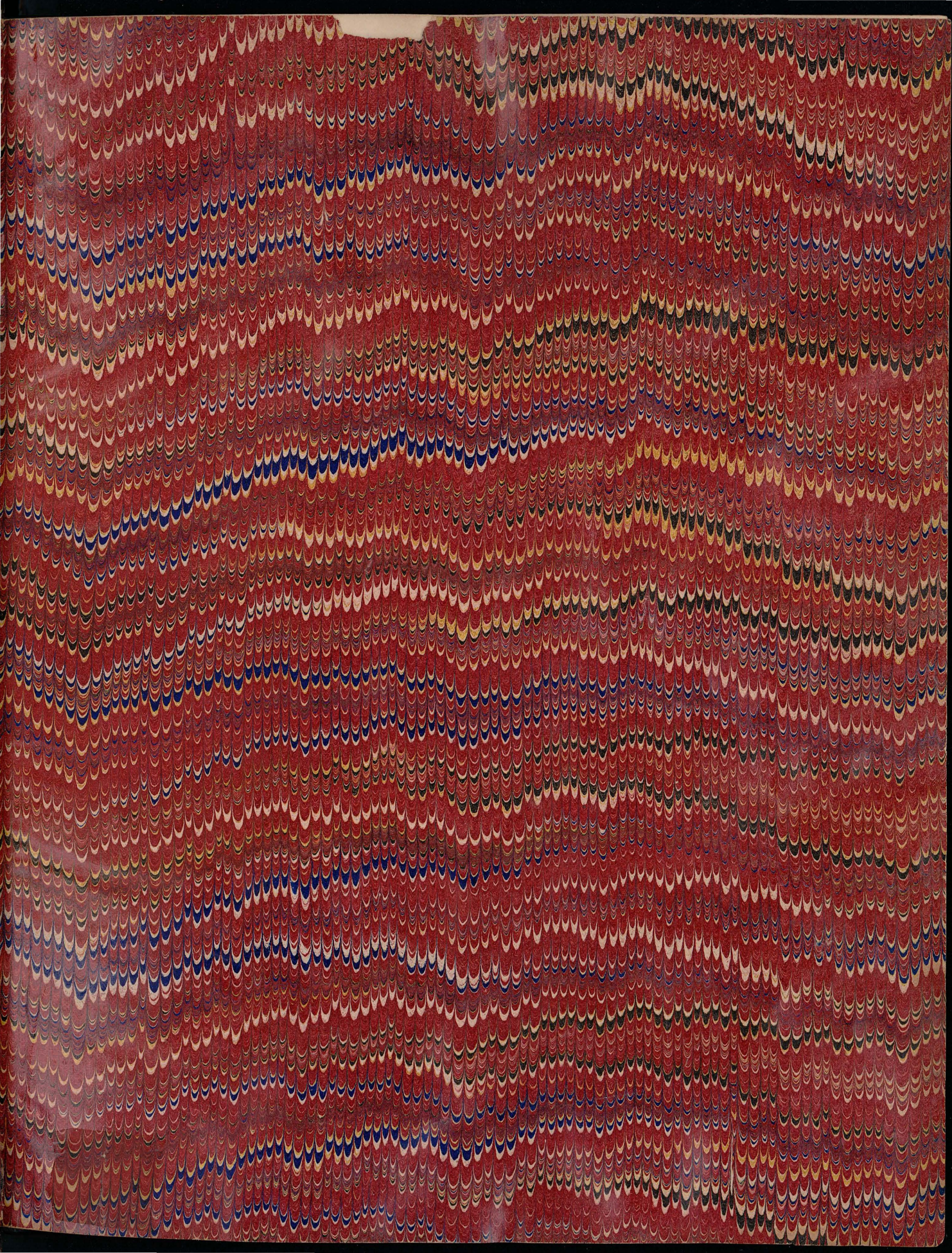


REPORT
ON
CHOLERA
AT
MARSEILLES.

MASON

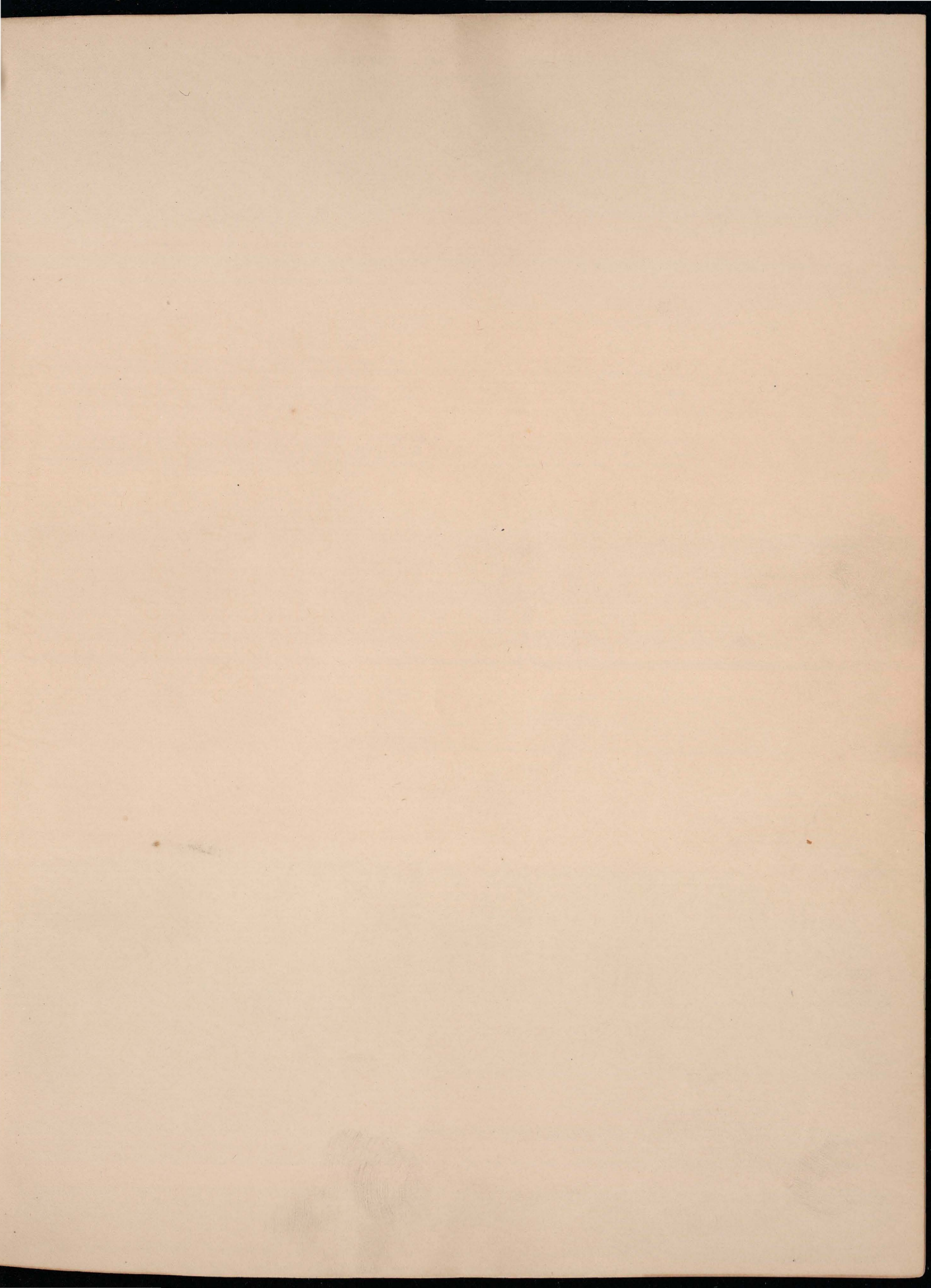
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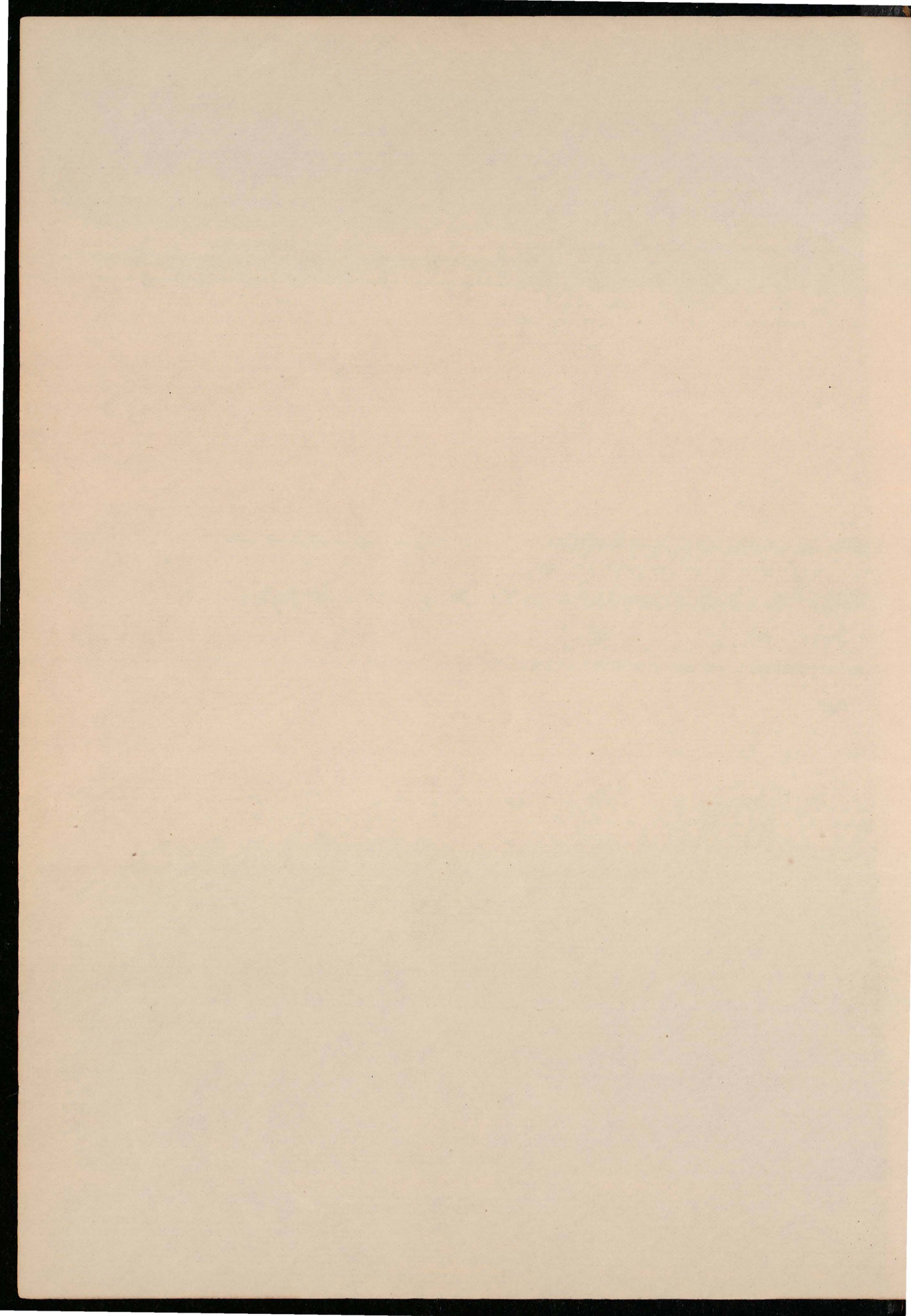


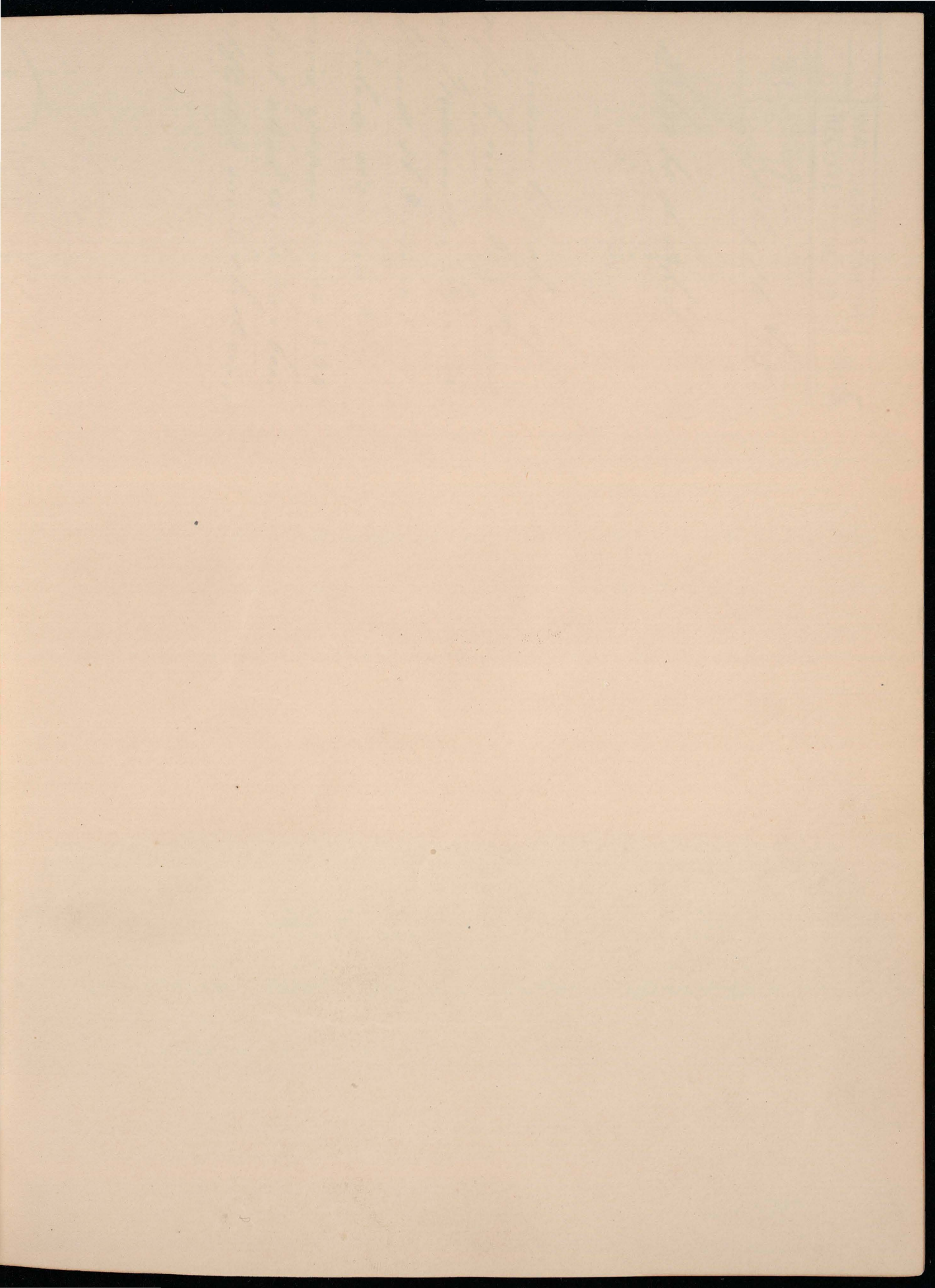


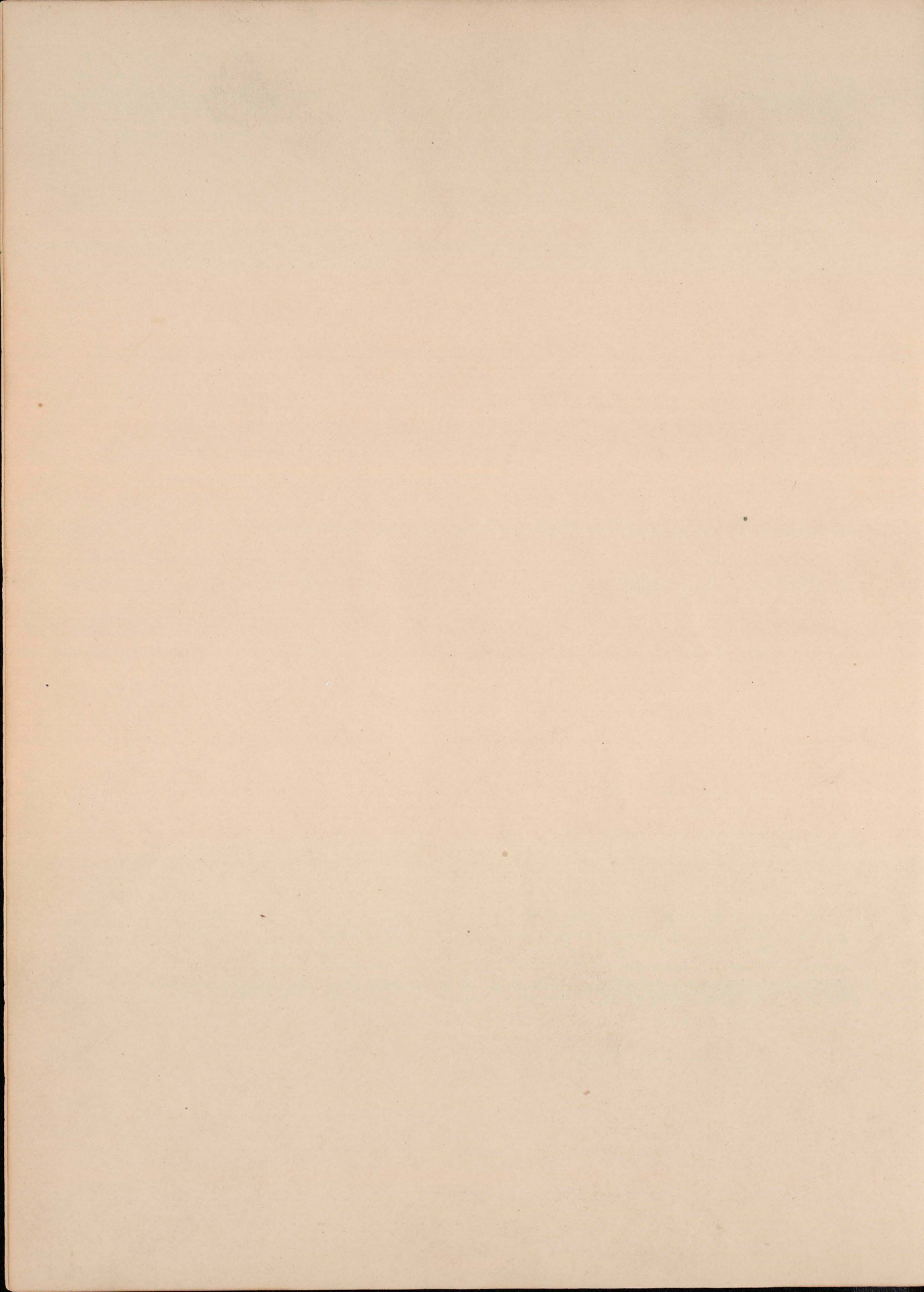
Cholera

ANNEX









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WART DEPARTMENT
RECEIVED JUL 18
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SURGEON GENERAL'S
OFFICE
JULY 16, 1885

State Dept

RECORD & PENSION DIVISION
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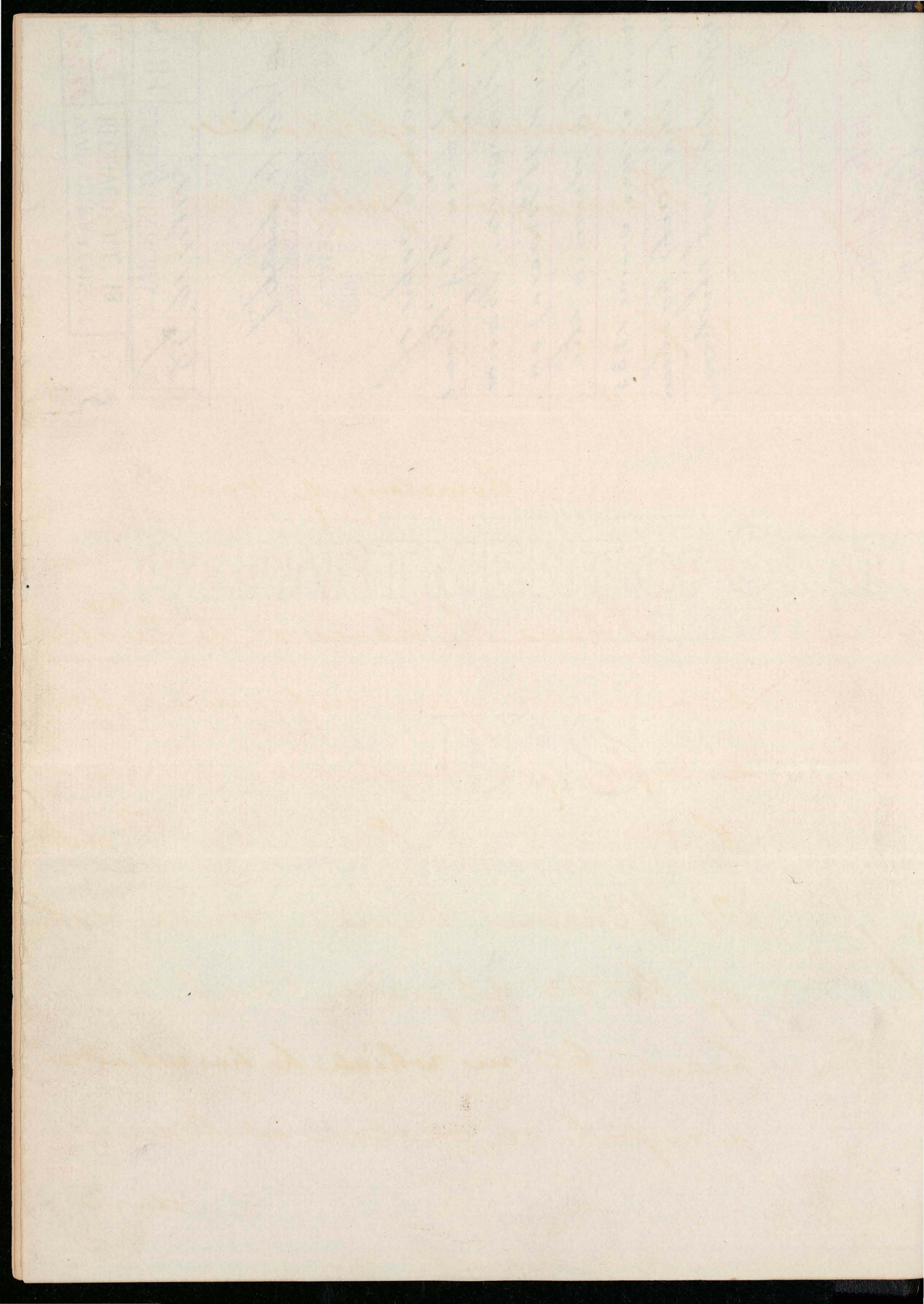
Documents copy of
report from W.F. Snow
at Manvelles, France
(Frank H Mason) on
cholera during the
same years, since 1835
that that city has been
affected with cholera

1 line

Recd. July 20/85

RECEIVED
SURGEON GENERAL'S OFFICE
JUL 24 1885

Mason, Frank H



Department of State.

Washington, July, 16th 1855

To the Honorable

William L. Giddings.

Secretary of War.

Sir:

I have the honor to Enclose
herein for your information,
a copy of a despatch from
the Consul at Marseilles, Frank
H. Mason, Esquire, under date
of the 23rd of June last, num-
bered 60 in which he has submitted
a report on cholera at Marseilles
during

during the nine years since
1835 that the City has been
afflicted with the Cholera.

I have the honor to be

Sir,

Your obedient servant.

W. F. Maynard

Enclosure.

1. Mr Mason to Mr Potter.

No. 60 June 23rd 1845.

Copy

Costly

No. 60.

1

United States Consulate,
Marseilles, June 23, 1885.

Hon. James D. Porter,
Assistant Secretary of State,
Washington, D. C.

Sir:

I have the honor to submit
herewith a report, in which
the attempt has been made
to condense into practical
form various facts which
are suggested by the experience
of the medical and municipal authorities

f

of Marseilles during the nine
years of cholera which have
afflicted this city since 1835.
No other European city has had
a larger experience or attained
greater skill in the management
of Cholera than Marseilles, and
it is thought that the Department
may wish to utilize the results
of this experience for the benefit
of such American communities
as may unfortunately be threat-
ened by Epidemic.

In a report of this charac-
ter, no originality of course
has

has been attempted, the purpose being rather to avoid all mere theories or disputed points, and give only facts which are fully established by experience and so plain and practical as to be useful for public information. A large part of the misfortune of a cholera epidemic is always averted when people generally understand the nature and limitations of the disease and the best methods of avoiding and treating

and treating it.

I am, Sir,
Very respectfully,
Your obedient servant,
Frank H. Mason,
Consul.

Enclosure: Report as above.

Asiatic

Asiatic Cholera.

A Resumé of the practical conclusions concerning its nature and the best methods of prevention and treatment as derived from studies of the Epidemics of 1884 and preceding years at Marseilles.

Report by Consul Mason.

During nine years since 1835, Marseilles has been visited by Asiatic Cholera. The outbreak
of

of 1834 was aggravated by a recurrence of the epidemic in 1835, and those of 1854 and 1865 respectively were each followed by a reappearance of the scourge during the summer of the following year.

With one exception - that of 1834-35 - the cholera death-rate of these second seasons was somewhat less than half that of the year preceding, and the diminution is attributed largely to the fact that, after a year of pestilence, the municipal
and

and sanitary authorities, the physicians and the people generally have been able to meet the recurring epidemic more intelligently and with much less of the panic and trepidation that are usually caused by an outbreak of Cholera in an inexperienced community.

In view of the present steady increase of Asiatic Cholera throughout various provinces of Spain, and the extraordinary efforts that are made to prevent its transfer

transfer to other countries and to
limit and restrain its ravages
in case such preventive meas-
ures should fail, it would seem
timely and provident to utilize,
as far as possible, the experi-
ence of Marseilles in the interest
of other threatened communities.

In the following re-
port, it has been sought to con-
dense as far as practicable
within reasonable limits,
the more important facts
concerning the nature of cholera,
the methods of its transmission

and

and the measures have here ⁵
been found most effective
in preventing its spread and
treating those attacked by
the dreaded malady.

I. The Nature of Cholera.

Leaving aside all merely
abstract theories concerning
the origin of the disease or
its precise point of attack
upon the system, it is im-
portant to observe that its
Symptoms, its Methods of
attack, differ greatly
in

in neighboring cases during
the same epidemic. Sometimes
preceded by diarrhoea, the cholera
developes only after several days
of such premonitory illness;
again, it strikes its victim
while asleep after a day
of apparently perfect health; in
one case, it produces profuse
vomiting and dejections, in
another, neither of these symp-
toms; one victim is stricken
with intense chills, suppression
of urine, loss of voice and
violent cramps, while another
feels

feels only a painful compression
of the chest; here, a case which
begins with violent symptoms
soon yields to treatment, then
another which from a mild
and nearly painless beginning
proceeds irresistably to complica-
tions which result in death
In no previous epidemic at
Marseilles were these mani-
festations of the disease so
various, so complicated
and perplexing to physicians
as during that of 1884.

In its choice of victims,
Cholera

cholera is more precise and definite. With rare exceptions, they belong to one of the four following classes of persons:

1. Those who live under bad hygienic conditions in respect to food and lodging.
2. Those who are imprudent in respect to eating, drinking and exposure.
3. Those who weakened and debilitated by alcoholic excesses.
4. Those who ^{suffer} from chronic digestive weakness or derangement.

7

Among the imprudences
which have become dangerous
in presence of cholera, are
overeating to the extent of producing
lethargy or indigestion, drinking
any liquid so cold as to check
the process of digestion, the
eating of raw vegetables in
the form of salads, and in
general the use of raw
fruits unless they are perfectly
fresh and ripe. Drinking
cold water or beer after
having eaten raw fruit
is a direct challenge

to cholera which no person, however strong and healthy, can afford to risk.

The susceptibility of drunkards to choleraic influences is proven by abundant evidence, among which may be cited the sweeping fatality of the disease whenever it has attacked the inmates of an Inebriate Asylum. Anything in fact, whether of a temporary or chronic nature, which impairs the vigor of the digestive organs, exposes the person

thus

thus weakened to choleraic attack.

II. Methods of Transmission.

The evidence of last year's epidemic seems to prove conclusively that the contagion of cholera is transmitted both by the inhalation of air infected by clothing, rags, wool, etc. which has been tainted by contact with the disease, — and by water. In proof of the first proposition may be cited the case of a man who
in

in July last left one of the most af-
fected quarters of Marseilles
for his native village of
Vogué, in the department
of Ardèche. He remained
there in perfect health until
he opened his trunk, which
had been packed at Marseilles,
and wore a suit of clothing
that it contained. Immediately
thereupon he and several
persons with whom he was
living were fatally attacked
and with twenty days fifty-
four of the 630 inhabitants

of

of the village had perished.
 To this may be added the conclusive
 fact that the epidemic of 1884
 was kindled at Marseilles
 by the clothing brought to this
 city in the trunk of a young
 student coming from ^{the} Lycee
 at Toulon.

Equally striking as
 an example of the power
 of water to diffuse the
 contagion was the case of
 the village of Omurgues
 in the Department of Basses-
 Alpes. On the 10th of July,
 there

There arrived at Omegues a
young servant girl who had been
in service at Marseilles. Soon
after her arrival, she washed
some linen which had been
in contact with a cholera
patient at Marseilles, in the
Jabron - a creek which supplies
the village with water. From
that imprudence sprang the
contagion which decimated
that unfortunate community
and spread death throughout
the entire valley of the Jabron
below Omegues, while
the

10

the inhabitants of the same valley
above the village escaped.

Concerning the general
question of transmission of
cholera, the medical authorities
of Marseilles are united in
the following conclusions:

1. The disease does not trans-
mit itself directly from a
cholera patient to a person
in good health, neither by
contact nor by inhalation.

2. The discharges and vomit
of a cholera patient usually
contain the germ of contagion,
which

which, although not immediately transmissible itself, yet when placed under favorable conditions quickly breeds and develops the contagious principle by means of which Cholera always operates, whether through the medium of air or water.

3. Clothing and textile merchandise are far more dangerous as vehicles of this contagious principle than individuals.

4. This choleraic poison attacks only persons who are in a greater ^{or} less degree prepared for

11
for its reception, and, in propor-
tion to the degree of this recep-
tive condition, it produces
Cholera or Cholerae.

In other words, Cholera
is not directly contagious like
Scarlatina, Small-pox or
diphtheria, but is a disease
producing a germ which,
in order to become contagious,
requires to pass through a certain
process of development. As
this germ is contained in
dejections and vomited matter
of Cholera patients, it is of the
first

First importance to immediately neutralize such matter by constant with powerful antiseptics.

For this purpose the finest antiseptics which have been found most effective are:

1. Solution of sulphate of copper in the proportion of not less than

2 ounces to a quart of water.
2. Liquid chloride of zinc $1\frac{1}{2}$ " " " " "
3. Bichloride of Mercury $\frac{1}{6}$ " " " " "
4. " " of copper 2 " " " " "
- Sulphuric Acid 4 " " " " "

The same chemicals are used for the disinfection of water-

closets, sinks and all other seats
of decay or infection.

For washing streets and drains,
Sulphate of iron 10 lbs. in 220
Gallons of water, or the liquid
chloride of zinc - 20 lbs. in
220 gallons of water - have been
found most effective and prac-
ticable. Phenic acid, in
proportion of ten pounds to 220
gallons of water was largely
used at Marseilles last year,
but the results were less satis-
factory than was expected,
some experts even going so
far

far as to affirm that the Plague
principle preserved rather than
destroyed the germs of contagion.

Cholera on ship-board

was notably fatal and violent,
not less than twenty-seven of
the thirty-six cases of sailors
attacked on vessels in this
port having resulted fatally.

Nearly all these cases were of
the "foudroyant" or rapid,
unmanageable type. The holds
of ships, tainted with bilge
water and the miscellaneous
leakage and refuse of previous

Carpenter

cargoes, are fertile hot-beds of malarial atmosphere and only the most scrupulous cleanliness and careful ventilation can avert this danger in presence of an epidemic. For the disinfection of ships a strong solution of chloride of zinc, liberally used, has been found most effective.

III. The care of Barracks, Asylums and Hospitals.

One of the grave problems of civic administration, during a

a period of epidemic, is the
Case of Barracks, Prisons, Asylums
and Other public institutions in
which large numbers of persons
are detained more or less against
their will.

The garrison of Marseilles,
during the summer of 1884, inclu-
ded an average of 5000 men.

Although two of the casernes oc-
cupied by this force were situ-
ated in the most infected por-
tions of the city, the entire mil-
itary death-roll from choleraic
disease amounted to only
twelve

14

twelve persons, one of whom committed practical suicide by drinking on a wager a quart of sea-water from the pot and following this imprudence with a libation of milk.

The regimen of the military department which produced these excellent results was the result of long and careful experience and consisted in the strict enforcement of the following rules: —

1. The wearing of a broad belt or girdle of flannel

to protect the stomach and bowels
from sudden chill.

2. White linen or cotton "Kavelocks"
to be worn during all out door
exercises.

3. Absolute interdiction of green
fruits.

4. The use of rice in all soups.

5. A quart of wine daily to
each man.

6. Variation of food as often
as practicable.

7. Suspension of military exercises.

8. A walk for exercise from
6 to 7½ A. M. each alternate day.

9. Music morning and evening in the barrack yard.

10. Frequent washing of rooms and halls with a solution of Phenic acid.

11. Stewards were required to have constantly ready tea, sugar and rum to be administered immediately in all cases of colic.

Also "Liquor of Batavia" to be given (20 drops in a quart of water) upon the appearance of choleraic symptoms. The "Liquor of Batavia" is thus constituted

constituted: —

Laudanum of Sydenham 6 grammes
Sulphuric ether 2 1/2 "
Water of orange flowers 6 "

IV. Subsistence.

In presence of Epidemic Cholera,
the question of Subsistence
becomes one of vital importance.
No amount of cleansing and
dosing with medicines can
eradicate the cholera from a
community which is badly fed.
It was found necessary in
Marseilles to prohibit the entry
and

and sale of Melons, Cucumbers, and most of the summer fruits and to open at various places in the city soup kitchens where the poor could be supplied with properly cooked food.

The code of instructions issued by the Health Authorities for the guidance of all classes, embodied in substance the following points: —

1. Avoid all excess, whether of eating or drinking.
2. Drink as little as possible of anything during the interval between

between meals.

3. Avoid the use of raw fruits and vegetables.

4. Drink mineral or boiled water, mixed with a small proportion of wine.

5. Avoid exposure to the chill air of morning and evening.

6. Wear a wide belt or girdle of flannel.

7. Liquors and cordials taken in moderation after meals may be beneficial; but when taken at other times, or in excess, they excite intestinal inflammation

which

17
which is an invitation to cholera.

8. Beef and mutton are the best meats in time of cholera and fresh fish should be used with extreme caution. All stale vegetables and fruits should be rigidly prohibited.

V. Clothing and Bathing.
Any sudden change of temperature, particularly the cooling of the body after violent exercise or exposure to heat, should be carefully avoided.

Accordingly, woollen clothing for every part of the body

is preferable to cotton or linen.

While the strictest personal cleanliness is essential, it is not considered advisable for any but persons in full physical vigor and accustomed to regular cold baths, to continue them in presence of cholera. Daily tepid baths, taken with careful reference to hours of meals, are advised. Such baths should always be followed by vigorous ^{rubbing} of the skin and the usual measures to restore vigorous and healthy circulation.

a few drops of a mixture of
 1 gramme bichloride of Mercury
 in a quart of Cologne poured
 into the wash-bowl before
 bathing the hands and face,
 is highly recommended for
 persons living in an infected
 atmosphere or who are engaged
 in the care of cholera patients.
 Mercury, although a remedy
 to be used with great care,
 seems to possess many of the
 qualities of an antidote to
 choleraic poison. In the
 hospitals of Marseilles, patients
 who

who had been previously ^{treated} with
Calomel for other diseases were
found to be almost exempt from
choleric attack.

VI. Moral Conditions.

The actual dangers of a cholera
Epidemic are enormously in-
creased and complicated by
the terror and demoralization
which the presence of the
dreaded malady invariably
inspires. Simple fear, of course,
does not produce cholera, but
it often checks and deranges

the

the vital functions to a degree which may weaken the patient and greatly increase his susceptibility to choleraic influences. Beyond question, it is best for those who feel this terror, and for all others who can conveniently do so, to leave a city infected with cholera as quickly as possible after the epidemic is declared. The presence of one terrified person is often sufficient to greatly increase the peril of an entire family.

The

The deadly attack of last year upon the unclean and crowded city of Arles was only checked by the emigration of three fourths of its inhabitants. Whatever reduces the population of crowded streets and precincts diminishes the danger. There remains the often perplexing problem of keeping the fugitives away until the danger is really past, for nothing is more perilous than for persons who have ^{once} left an infected atmosphere, to return to it before the pestilence

is completely suppressed. At this stage of an epidemic, physicians and city authorities have a great responsibility.

In all years of pestilence at Marseilles, the premature return of the people who left hastily at the outbreak of the disease has produced a more or less serious aggravation of the scourge.

The hygiene of this stage of the epidemic is as follows:

1. No person should return to an infected ^{city} unless in

a condition of good health,
particularly in respect to all
the functions of nutrition.

2. Whenever possible, persons
so returning should stop ^{for} at
least forty-eight hours in a
suburb or other locality as near
as possible to the infected
city without being itself ac-
tually infected. This modifies
the abrupt transition from a
healthy atmosphere to an
unwholesome one.

3. Before returning to a
house which has been closed
during

during an epidemic, the occupant should be sure that the premises have been thoroughly prepared. The neglect of this precaution has cost the lives of entire families whose houses were in the best quarters of this city.

For at least a week before the re-occupation of a dwelling under such circumstances, it should be kept open daily during several hours, fires built in the chimneys, the walls brushed and the
floors

Floors washed with solutions of
Sul soda, sinks and closets
washed thoroughly, disinfected
with copperas or chlorides,
and, as far as possible, ceil-
ings and walls whitewashed.
Carpets and curtains should be
aired and dusted and
all decaying vegetation or
garbage burned. Upon closing
the house at evening, the person
in charge of these preparations
should burn in each room
from two to four ounces of
sulphur, the fumes of which
should

should permeate every crevice of the building during the night. Nothing short of a repetition of these measures during several successive days can render absolutely safe a house which has remained closed during summer in a city infected by cholera. Unless compelled by urgent reasons, no person who has been absent from a city during a cholera epidemic should return until at least eight days after the last

last

Last fatal case has been reported.

It was clearly demonstrated during the epidemic of last year that the fumigation system, under which railway passengers were crowded up with their baggage in close rooms and exposed for some minutes to the fumes of phenic acid and other antiseptics, was a worse than useless barbarism, and was soon abandoned by the French Authorities. There is, in fact, grave reason to suspect that the

the

The quarantine system, as practiced by several Mediterranean countries, creates more danger than it obviates. The cholera was carried into Italy by some returning Italian workmen who, with their families, underwent the prescribed fifteen days detention in the lazaret at Brindisignia under conditions that might well have generated cholera, without previous exposure to contagion.

Closely connected with
what

what has been designated the
"Moral conditions" of ^a cholera
epidemic, is the part played
by the public press. After thorough
experience, it has been found best
and wisest for the authorities
to publish daily and without re-
serve the precise facts. As long
as the disease has shown only
a sporadic character and epi-
demic conditions have not
been developed, there may be
reasons which fairly dictate
concealment of the truth, but,
when once the existence of
the

the epidemic becomes known, all evasion is worse than useless. The presence of a malady which can kill a strong man in five or six hours so excites public feeling that rumor invariably far outruns the truth and panic takes the place of reason.

The fact should be urged that, during an epidemic, public apprehension is always out of all proportion to the real danger, and that a person with a cool head and good

good digestion, who lives carefully,
sleeps regularly and avoids the
every day imprudences which
are always more or less injurious,
can live amidst cholera patients
indefinitely without serious danger.
During the whole of last year's
experience, not a single nurse
at the Pharo Hospital, nor one
of the workmen at the cemetery
where the dead were buried,
was stricken with cholera.
At the close of the ordeal,
the wounds of persons who had
remained in the city during
the

the entire summer found themselves in more perfect health than they had known for years, by reason simply of their regular, abstemious living ^{during} the months of period. On the other hand, a young physician, who ate half a dozen apricots and afterwards drank several glasses of cold beer at noon, was dead and buried before midnight.

The Subject of Remedies
and Methods of Treatment
belongs

belongs to medical science
and is mainly outside the scope
of this report. There has been
found as yet no positive specific
for cholera, and nearly every
physician of ability and experi-
ence has his own remedies
and system of treatment. Ether,
Mercury, Picrotoxine, Iodine,
Nitro-glycerine, Camphor, Morphia
and other drugs all have their
advocates. The practitioners
of Homoeopathy claim to have
attained great success in
resisting the earlier stages
of

Of cholera with camphor and
Cuprum.

The methods of treatment
practiced at the Pharo Hospital,
and, in general, by the physi-
cians officially in charge of
the various "Bureaus of Assistance",
throughout the city are briefly
described in the excellent
report of Dr. H. Mireur, from
which many of the facts in
this synopsis are derived.

To arrest the diarrhoea,
check vomiting, subdue the
cramps, raise the temperature,
and

and sustain the strength of the patient, these are the essential things

to be done, so that the first step in the treatment of a case must depend on the stage of the malady in which the physician finds his patient.

1. To arrest diarrhea, opium, in the form of Laudanum of Sydenham; is the standard specific, although tannin, catechu, and Cachaou were used with greater or less success.

2. In the first stage of premonitory vomiting, ipecac,

was

was administered; later on, as the symptoms became more complicated, recourse was had to aerated drinks, ice and strong hypodermic injections of morphia.

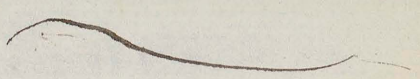
3. For the suppression of cramps and contortions which characterize violent cases, various exciting liniments, vigorous rubbing, and acetate of ammonia were used, but physicians generally preferred hypodermic injections of morphia as the most certain remedy.

remedy.

4. In the "algide" or collapse stage, when the patient seems stricken with cold of death, the usual exterior applications were: muscular friction, turpentine liniments, sinapisms, wrappings of hot linen, and flannels spread with mustard. To these were added doses of alcoholic liquors, ether, acetate of ammonia, picrotoxine or the concentrated camphor of Hahnemann.

5. The cyanose stage, in which the stagnation of blood

in

in the capillary vessels causes
the skin to assume 
a brown, blue or purple tinge,
was successfully treated by
inhalations of oxygen and
with caffeine administered
rapidly in large doses to
restore action of the heart.

As a popular remedy
to be kept at hand for imme-
diate use, nothing has
been found superior to Chloro-
dyme, which is sold by
most druggists, or may be
prepared after the following
Formula

Formula: _____

Chloroform	3 parts
Sulphuric ether	2 "
Perchloric Acid	3 "
Spirit of Camphor Indica	3 "
Molasses	20 "
Spirits of Capsicum	3 "
Morphine	1 "
Cyanhidric acid $\frac{1}{50}$	1 "
Essence of peppermint	5 "

Carried in the pocket
and administered at the first
symptom of attack; it has saved
thousands of cases which might
have been beyond rescue before

a physician could be summoned.

No country is better equipped than the United States with able, zealous, intelligent physicians, who know by practice or theory the most of what has been proven concerning the best remedies for cholera. Should the occasion unfortunately arise, they will doubtless be found equal to every emergency. The important thing is that people of all classes should realize, first, the importance of cleanliness and correct living; secondly, that

cholera

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W.A.R.

1885

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SECTION GENERAL OFFICE 1885

AUG 3 1885 G.O.

RECEIVED JUL 24 1885 SURGEON GENERAL'S OFFICE DE LA REUNION

Cholera from its first stage
is a disease which requires
the best professional attention
and, finally, that in presence
of the Asiatic scourge, an
ordinary diarrhea is a serious
illness and should be treated
accordingly.

Frank H. Mason,
Consul.

United States Consulate,
Marseille, June 23, 1885.

3110
c.

July 10 85.

Sir:

I have the honor to acknowledge the receipt of a copy of a despatch dated the 17th ultimo from the United States Consul at Marseilles, in which he submits a report on Cholera in that City during the nine years, since 1855; that it has been afflicted with the disease, kindly transmitted in your letter of the 16th instant, and to advise you that the document in question has this day been sent to the Surgeon General of the Army for his information.

Very—

Med. Hist.
MS.
B
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