The status of preventative medicine in Turkey with particular reference to the control of epidemics

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The Status of Preventive Medicine in Turkey
with Particular Reference to the
Control of Epidemics.

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Synopsis of outline for thesis -

The Status of Preventive Medicine in Turkey.

A. R. Hoover.

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Turkish government and religion.
Turkey, its peoples.
Logical consequences of present relationship between
government and people.
Beliefs, customs, etc., - their relations to preventive
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Conclusions.
OUTLINE

The Status of Preventive Medicine in Turkey, with particular Reference to the Control of Epidemics.

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3. Insanitary and unhygienic conditions a natural consequence.

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5. Ravages of epidemic, and pandemic diseases, a disgrace to modern medicine, and a menace to western civilization, through emigration.

6. An opportunity for modern preventive medicine to regenerate a country.
The Status of Preventive Medicine in Turkey, with Particular Reference to the Control of Epidemics.

During eight years residence in the Turkish Empire, one thought always uppermost, being constantly suggested by ones surroundings, has been the backwardness of Turkey, as compared to European civilization or to our own Western civilization.

It has been the desire to get at the underlying causes of this great problem of the near East, which has stimulated the writer during these years while he was engaged in the practice of medicine in that country, to keep eyes and ears open to seek through his intimate contact with people and races of all classes in that country, to reduce to tangible form jumbled masses of strong impressions, for instance tales of the rich, and the poor, the Moslem, the Christian, as poured into the ear of the physician; conditions of city and village life, as seen and investigated in towns through parts of Asia Minor; and most
important of all to attempt a solution of the pitiable conditions causing needless and preventable waste of human life, the result of their disregard of the laws of preventive medicine.

The writer's impression that "preventive medicine" holds the key to the solution of many of these pitiful conditions in Turkey, is strengthened by a fresh view of our American cities and towns, during a few months respite from duty in Turkey.

Turkey's existence as an independent power is gravely threatened today, chiefly because she has neglected these laws of civilization, of public and personal well-being which make for a healthy, contented and progressive people.

**Turkey - the country.**

Turkey occupies a most strategic position in the near East, lying as it does between Europe on the one hand, and Persia and the far East on the other, a country including parts of Europe, Asia, Syria, Arabia and Africa.
Turkey is the nucleus of the Mohammedan faith, a faith which embraces some 300,000,000 adherents in every country of the globe, although Turkey proper has a population of some thirty million only. As to latitude and climate Constantinople, the capital city, is situated practically the same as our latitude in the state of Iowa, while the whole Asia Minor region just to the south and east of Constantinople offers a delightful temperate climate varying from the rather oppressive climate of the low plains to the delightfully cool plateau regions, or the bracing mountain regions of from four thousand to eight thousand feet, the whole region of Asia Minor being relieved of monotony by plains, plateaus and mountain ranges giving the ever present thought of it being a country of great possibilities.

Its commercial importance can be further realized from a study of Turkey's seaports, and coast lines. Constantinople described as the first port of the world, the strategic gateway of the near East, jealously coveted by the nations of Europe for centuries, and today being savagely
fought for by Germany on the one hand, and Russia and the allies on the other.

The deep water of the Bosporus uniting the Black Sea and Mediterranean sea, and giving a deep water harbor, the "Golden Horn" at Constantinople, where ships of deepest draft may dock at the wharves in the very heart of the city, and where it almost seems to one who climbs the beautiful heights of the Bosporus and looks upon the panorama spread before his eyes, that he might shout from the European side to his friend on the Asiatic side. It is here that Europe and Asia meet, and where we may look for changes of great political and commercial importance. Other great ports as Smyrna, Mersine, Beyrout, are known to the world. Dried fruits, nuts, tragacanth, hides, cotton, wool, dried meats, olives, olive oil, raisins, rugs, laces, embroidery, towels, etc., give only an idea of what the commercial possibilities are with the development of transportation facilities.

From an agricultural standpoint Asia Minor has been pointed out as one of the regions of greatest promise in the whole temperate zone, even as it is, farmed in an unscientific manner, ploughed by the
ancient one-handed sharp-pointed plough which scarcely more than scratches the ground, the crops give a fair increase and seldom fail, wheat and barley being the grains mostly depended upon. Irrigation is used where streams are available, but great irrigation projects such as have reclaimed millions of acres of arid lands in our United States, are as yet scarcely thought of. There are many great plains surrounded by mountains where rushing spring torrents, if conserved by suitable dams, would give ample water supply.

Agricultural Schools. Any attempt by government or people of scientific study of agricultural problems, except such as in the natural course of events, has worked out practically as the best way under the circumstances, seems not to have been done. The people are ever suspicious of their neighbor, ever fearing the offensive hand of the official, ever living for the present day needs, scrapes the soil for his grain, strips the mountains of forest, even to grubbing out the roots of the trees for fuel, takes what he can get without a thought of giving to the earth a return for her bounty; puts a wall
around the field of ground he calls his own, watches carefully his crop, guards it with armed patrol night and day during harvest season, gathers his harvest by hand, locks up his stores, and sits in the comfort of semi-hibernation during the winter months content in his way because he known no better.

Conversation of Natural Resources in that country instead of meaning as I take it, it should mean, a conservative development of natural resources, means simply a locking up of such resources as the Government wishes to keep undeveloped. Rich mines of coal, silver, copper, remain untouched, except in a few regions, no permission being obtainable under conditions to make operation desirable. Consequently instead of coal, the peasants use dried manure, thus robbing their fields, or use wood, sticks, leaves, roots, or charcoal, which being brought from long distances to the cities makes such fuel practically prohibitive in price, the consequence being various unhygienic compromises; half warmed houses, whole families together in one practically airtight room, merchants in their shops huddled half frozen over a brazier of coals, living in stables, sharing the animal heat — utilizing the
heat of decaying manure.

One may contrast with this form of conservation of natural resources, the conservative development of natural resources as seen in any European country, the beautiful wooded mountain slopes of Switzerland with varying shades of green, showing where cuttings of forest are followed by replantings, while regularly fertilized fields give crop after crop of produce without impoverishing the soil, then look at the barren scarred hills of Turkey - forest gone and surface soil washed away - and the Turk says - "Kismet." "it is our misfortune".

Turkey is a country where untra-conservation means ruthless waste; undeveloped regions, stripped of trees, vegetation has reaped nature's own retribution, has been undeveloped, unused, the cream skimmed from the milk as it were. Turkey thus using and not giving in return, strikes a balance between population and existing economic conditions, where a certain number of people manage to exist, their flocks and herds half fed on the scanty mountain vegetation, their grain fields yielding a one-third crop, the grain stalks being often pulled up by hand to save the straw for fodder. All these things remind us again of the Turkey that might be. Inconsistent as it may seem
with the foregoing statements, Turkey is so naturally favored, that in such regions where water may be had by simple ditching, and when the individual cares industriously for his own piece of ground, the results show in some of the finest fruits, vegetables and grains — for instance, the musкат apples of the Amasia region, the filberts of the South Black Sea coast, the figs of Smyrna, the tobacco of Northern Asia Minor, the raw silk and the cotton of Adana region, grapes, apricots, pears, quinces, apples, peaches, produce well throughout most of Asia Minor. English walnuts, filberts, are of exceptional good quality. The fat-tail sheep of Turkey are noted both for wool, especially the Angora variety, and for quality of mutton.

Industrial progress from the same underlying causes (which will be enumerated below) is on the same plane as agricultural development. Factories in the interior of the country are practically unknown. The cities have no electric lighting system, no city gas, no machines practically except hand driven, no street railways, no telephone systems, no railways. Take these things from our modern cities, and we can imagine something of primitive conditions.

Arts, trades, and industry of all kinds remain
hundred of years behind the modern era. Hand looms, hand forges, small hand presses, no manufacturing or printing of any sort in any cities of large size. No sawmills - boards are sawed by hand - and carpenter work done by hand from tree to finished cabinet.

Architecturally the cities are mere overgrown villages; jumbles of flat roofed houses, streets walled on either side, and with no attempt at right angled city blocks, no house numbers, one finds Ahmed Effendi - the rug-merchant's house, by going as directed to the big fountain near the grain market, taking the first street to the right until you come to the bakery shop, then turn to the left, etc. The streets are unpaved, or perhaps paved with rough cobble stones, which become worn and uneven, full of ruts and holes, makes driving over the city streets a gymnastic performance of some severity. Pedestrians pick out the cleaner portions of the street for a walking place, more often than not it leaves no choice for mud, mud, everywhere. There is no adequate system of drainage, all sorts of filth being dumped into the streets, animals slaughtered in the streets, the blood left to drain away. Stench, filth, flies and vermin, make a picture which to the physician means death and rampant throughout the
Small villages are collections of adobe houses, with no attempt of ornamentation or paint. These ever present street wall adds to the monotony of the scene. Stable and living rooms are often under one roof, and indeed often used in common. There is no such thing as the American farm-house or country home. All the people live in villages or cities, the farmer leaves the village in the morning, with ploughs and teams of oxen, going perhaps to reach his fields and returning at night to the village. Do we appreciate the fact that our stable American government makes possible the ideal safe and peaceful rural life of our country? Without at this time examining too closely the interior of our Turkish friend's homes, we leave our consideration of the country (with one illustration) to examine more particularly the Turkish Government.

Mehmed Agha, a villager, was fortunate enough to secure a wife from an educated family, living in one of the coast cities of Turkey, the wife having never visited the interior of the country, we may imagine her consternation when upon arriving with her husband at the filthy village, which was
to be their future home, she exclaimed "Effendi (Sir), I can not possibly live in this place in all this filth and squallor". "My dear", he replies "let us not speak of this now. Wait for forty days and then I will ask you about it! After forty days in reply to this question, she replies" why really it is not so bad, the village is much cleaner than when I came". Hence the Turkish saying" One becomes accustomed to anything in forty days".

The Turkish Government and Religion. Three men constitutes the powers that be in the Turkish Empire, the Sultan - the political head, the Shiek-ul-Islam - the religious leader, the Minister of War, who, in the last six years at least has had more to do with the direction of affairs than any other official. The sick man of Europe, the Sultan Abdul Hamid II, is well known to the world by reputation as an example of the absolute despot, and his government as a centralized despotic rule of shrewd, unprincipled, self-centered ambition. How he controlled as with an iron hand his millions of dissatisfied subjects, how he kept them in ignorance, how he played one department of state upon another to his own advantage, how tales of the magnificence, the splendor, the vice, the cruelty and cold-blooded tragedies of his Court have thrilled the world in
common knowledge. His, was a rule of transferred to modern time, and the inevitable, but long deferred result was bound at last to come. The growing discontent of a people rankling under oppression and the greed of officials, the utter disregard of the voice of the people, the persecution of the Christian races of the Empire, and their constant antipathy to all things moslem, together with their dream of national recognition, lead to chafing on the Moslem side and the Christian. Remembering with horror the massacres of Christians in the past, and discontent with the present state of affairs, Christian and Moslem hatred grew apace until the downfall of the Sultan seemed certain.

This momentous change in the history of Turkey came six years ago. A constitutional form of government was proclaimed, and the common people in their exuberant enthusiasm for what they glibly termed "liberty, fraternity, equality," embraced one another - Christian and Moslem wept upon each others neck as long lost brother to brother, processions with flying flags, meetings, speeches; the joy of the people knew no bounds! Quite naturally to a people, the mass of whom were unlearned, free dom and equality had a far different meaning than to the American, born to the
ideals of freedom. These people expected the speedy fulfillment of their hearts desire for license to do as they chose in all manner of work — a better government, attention to all their pet schemes, to advance their own nationalistic ideas, etc. Confusion existed as to what really the constitutional government did mean. Differences of opinion produced political parties, the one which finally, after much adversity and after many changes in the Turkish cabinet, gained the upper hand — was the young Turk party. War followed war — the war with Italy, involving the loss of Tripoli in Northern Africa, the loss of thousands of men and million of dollars in money. The Balkan war involving still greater loss in men and money, and the loss of all but a small region of European Turkey. The constant requisition by the government of men, horses, food supplies, the very evident strained condition of Turkish finances, all combined to nullify any optimistic visions of freedom and equality — discontent and outspoken opposition to the new regime were heard on every side. Many prominent political leaders were killed, among others the Minister of War, until one thought that the very men Turkey most needed for the crises viz. able statesmen and wise leaders, were the very ones upon whom the dissatisfied people
vented their wrath. Internal disorder added to the chaos, the Adana massacre still fresh in our minds, trouble with Kourdish chiefs in Eastern Turkey, and with the Arab Chiefs in Arabia, showed the condition of unrest among the people in general.

Lastly the general European conflict, drawing into the war Turkey, probably against her will, but unavoidably, as she was virtually under the military control of Germany. This seemed too much for overburdened Turkey, and that country now faces what seems the inevitable, that is, "foreign control", but as many of the conservative Turkish people have expressed it "We will welcome that day as better far than the past years have been under our own control". In this manner has come about radial changes in that Empire which seems destined to result in a new Turkey.

The People of Turkey as to Religion and Race. As to religion the people of Turkey are divided into Moslem and Christian. Of the former the Turk is the dominant race. Others, such as the Kourda, the Arabs, the Circassian, and many minor races that embrace the faith of Islam, contribute to make up the Moslem population. The Christian races are the Armenian and Greek, others are an entirely negligible number as far as Asia Minor is concerned, and as our remarks are concerned largely
with that part of Turkey known as Asia Minor we will not consider the Syrian people, the Jews, the Holy land, or Arabia.

In Turkey we have the spectacle of millions of people of different race of widely different origin, radially opposed in religious belief, of widely differing racial characteristics, living side by side in the cities and villages of the Turkish Empire, a condition of society which naturally enough has led to clashing of arms and shedding of blood at times.

The Moslems are of many different sects, but in general are believers in Allah, or one God, and in Mahommet his prophet. Their holy book, the koran, written in Arabic language, in understandable only to the learned class, while in the Turkish schools the children are required to learn by heart large extracts from this koran, not understanding the meaning of what they so learn. The Moslem's form of devotion is formal, consisting of the repetition of a certain prayer in a prescribed manner, with bowing, genuflexion, ablution, etc. This prayer must be said five times daily, and this together with the meetings in the mosque, and the observance of Friday as their day of rest - many holy days of fasting or feasting, makes great demands daily upon the time of the Moslem. The Moslem is the ruling class of Turkey.
The Armenian people adhere to their evangelical faith, in a formal church ritual, and a form of worship which has led many to characterize their religion as "dead". The Greeks adhere to their Greek orthodox church, which in formality, lack of vitality, resembles the Armenian church. Members of both Armenian and Greek have embraced the protestant faith, as taught by the missionary workers in Turkey, and have formed protestant churches and congregations, some of which are among the largest protestant congregations in the world.

Both Armenian and Greek races long oppressed by Turkish rule, have chafed under the yoke, and have often been untactful in the manner of expressing their discontent. The formation of secret revolutionist societies is general throughout Asia Minor. From time to time leaders of such movements who have been too outspoken have been banished from the country by the Turkish Government.

We have then the incompatible mixture of a ruling race domineering, self-centered, adherents of a religion which claims all non-believers as infidels, and on the other hand a servile race, not inherently of inferior powers of intellect, but ever restless, chafing, and intriguing to get out from under the yoke of bondage. In fact looked at from any point of view, the picture of the
people of Turkey shows contrast and lack of harmony - e.g.,
a ruling race, and a servile race,
an educated, and an uneducated class,
an official class, and the common people,
the Coast city-dweller, and the villager,
the wealthy class, and the poor masses.

General statements in the nature of the case
cannot be applied to the people of Turkey, hence the
great variety of misconceptions regarding the people
of that land, which one finds among intelligent
American people. The difference between the educated
person of Turkey, be he Turk or Christian, is so great
that we must keep the distinction in mind. Our educated
Moslem, especially those of the larger coast cities, is
an alert, keen, observer, quite well versed in religion,
philosophy and science, remarkable in his free use of
three to five, perhaps ten or more languages, rather
more interested in philosophy and politics than in the
natural sciences, keen, shrewd and polite in dealing
with men. The uneducated poor village dweller is an
ignorant of the affairs of the world as one could
imagine. It is not an ignorance of the stupid, degenerate
sort, but the ignorance of him who has been left out of
the strife and struggle of civilization, whose horizon
is limited to his village and the adjacent hills, a few
cattle or sheep, and a hut of two or three adobe rooms to live in. An example or two may give the idea.

The Shepherd and the Baby Carriage. Being encamped in a small native hut in a mountain village where we had gone with our family for a brief outing, we were visited one day by a strapping shepherd boy who entered timidly, inquired for the doctor, and held up a hand which he had injured with a gunshot. After the hand was dressed he seemed loath to go so squatting on his heels near the door he proceeded to take a deliberate, inquisitive survey of the room with its strange articles which we (the foreigners) had brought with us. Finally after looking long and intently with puzzled expression at a wicker baby carriage, he spoke out saying "did all you folks come up here in that wagon?" The maid with a smile answered "Yes, of course, and we brought all this furniture along in it too". A long silence ensued, then he said "Well, that is a wonderful wagon, but last year there was a young foreigner up here, and one day he took a machine with two wheels, and swinging one leg across it, in the space of one breath he was down to yonder village".

Or take this example — The Village Chief — One winter evening being snowbound, we were obliged to stay
over night in a very small Turkish village. In
the village room were gathered the village Chief,
a servant boy, and a few village folk, who had
come to gossip. We were the object of curiosity,
but soon all joined in conversation. The Chief
beckoning to the servant boy bade him prepare
coffee for the guests. He, scrambling to his feet
took three Turkish coffee cups from a shelf, looked
at them, cleaned out the dust from the inside the
cups with his fingers, and proceeded to make coffee
for us. During the conversation, we asked the Chief
why he did not have books and magazines to read.
"Why yes", said he, "it would be a good thing if we
had say a newspaper come once in a month or so".

The same wide gap of society is seen from another
viewpoint. The official class and the common people,
for pompousness and dignity, which seems as natural
as though he were born with epaulet and shining uniform,
the Turkish official has a picturesque place in all
Turkish affairs. Official visits to such dignitaries
are always formal in the extreme, the visitor often
sitting during the entire visit without uttering a
word save that of formal salutation accompanied by low
and repeated salamimg. Topics of conversation between
foreigner and these dignitaries are of the nature of
political conditions, and often of the great improvements
that are just about to take place in the Empire,
Improvements and reforms which by the way melt away like the funds which are appropriated for public improvements. Piles of rock partly crushed and lying by the roadside testify to the seepage of funds. A well meaning official to gain favor of the people proposes to tunnel a mountain, that an abundant water supply might be turned from its course so as to flow into the city, men were sent out in a small squad with pick and shovel to tunnel the mountain, a matter of several miles of rock tunnel. However, an official is frequently exchanged from place to place - who can say but that this particular official's purpose was grand, and he a great public benefactor!

The missing link is evident in Turkey. It is the link between the official and the common people. The official, self-centered, being on a plane entirely aloof, sharing as little in common with the masses, as king and peasant, can but have the inevitable result of producing discontent and inward rebellion, however, courteous and self-abasing the outward attitude of the serf may be. Much that is written about Turkey is written by those who have visited the large coast cities not venturing into the interior, and the impressions they give are applicable to that class of the population only. The real heart of Turkey is not to be seen in
these centers touched at every turn, as they are, by European people and customs. In these cities we see what our Moslem friend may be and do — keen, alert, active, businesslike, women's clubs, newspapers, in fact most of the outward things which go to make up the modern city. The wide gap between this class and the village class can be appreciated only by the traveler who braves the discomforts of Turkish wagon travel, the filthy roadside inns, and all the lack of accommodations deemed absolutely essential by the ordinary sight seer. Our villager is content with his soup of wheat or lentils, and the flat unleavened bread baked on hot stones or copper plates. His animals furnish a bit of milk and cheese, his field the grain, and his life is reduced to its lowest terms of simplicity. Sitting, talking, and smoking throughout the winter months, leisurely ploughing or tending his flock in the summer, gives occupation enough, while trudging for hours or days at a time behind his one or more burros, as he drives them to the city market, gives him endurance, and generally speaking a fair physique.

Turkey is a country where wealth and poverty do not mix. The wealthy often gives no outward manifestation of his wealth, is not inclined to share in any degree with his poor brothers, he hires laborers for 25 to 40 cents a day. Never thinks of lifting so much as a
finger to carry a package from the market, or to carry his own child in his arms. Dignity of labor is a phrase not current in Turkey, the dignity is there, and the labor, but the one far removed from the other. These remarks apply in general to Turkey, with many exceptions to prove the general rule.

Logical Consequence of Above Relation Between Government and People. The fruits of such incompatibles as above mentioned, may be summed up as the fruits of self-centered ambition. A people kept in ignorance and poverty, a country's resources kept unused, like the one talent carefully put in a napkin and uninvested. Naturally enough the people have stripped what they could get from the country, have left the future to care for itself, and the country like an unused machine left to weather in the field, is depreciating in value year by year.

It has constructed an absolute bar to industrial and commercial progress. Industries except in a small way have never gained a foothold in the interior of the country. Ever suspicious of the people, lest they manufacture implements of war. Every kind of industry is tabooed. Even were he free to manufacture say canned goods, etc., the lack of transportation facilities makes void his scheme.

Factories, machinery, use of electricity, etc.
seem to smack to much of western ideas. Such things must be imported from Europe or America, and these are the lands of the Christian infidel. Even the locomotive engine is characterized by the villager as the "infidel's black jackass", and railroad projects are often spoken of disparagingly, because railroads would spoil the work of the teamsters and caravan drivers.

Through generations of quenching of individual and racial aspiration, the people show a stolid indifference in many instances, an almost hopeless sort of despair of ever attaining to anything but his present plane of existence, it is again - "kismet" our "fate", our "misfortune" - but as to a remedy - "why our forefathers lived so, and so must we".

The insanitary condition of the country is but another manifestation of the result of a centralized government for the few, a government devoid of the altruistic democracy needed to uplift the people to a sense of responsibility for ones neighbor. Some persons do overcome this inertia of the government and show a surprising thrift and altruistic desire to help, to keep their homes, their shop, their person, sanitary, and to use their influence toward such ends, but it is not of this class that this paper deals, but
with the larger class who can not overcome the natural tendency to let things go as they will.

To throw snow from the roof into the narrow street until the street is blockaded, except to foot passengers, simply because everyone else does the same - "Never mind, in the spring it will melt, and the sun will do the work for us". With this much of a glimpse at the country, its people, the government, and its relation to the people, we turn to consider some of those characteristics of the people which relate more specifically to our problem of introducing modern principle of sanitation and preventive medicine among them.

**Beliefs, Customs, Manners and Superstitions which Inhibit the Introduction of Modern Preventive Medicine**

The fact that in countries under a Christian form of government preventive medicine has reached its nearest approach of success, leads us to question whether or not the religion of Islam is responsible for the failure to introduce sanitary reforms in Turkey. It must be recognized that although [**Moslem**](https://en.wikipedia.org/wiki/Islam) and Christian live side by side in the Turkish cities, and although in these cities outward friendliness exists between the races, there is that antipathy among the common people which makes them slow to adopt any manner or custom which might bring censure or criticism
upon their heads from the Moslem religious teachers. Their own religious law gives rules regulating ablutions, eating, drinking, etc., add to this a great tenacity in adherence to the belief and customs of their forefathers—most potent of all is their belief in fatalism, a predestination which man is unable to change in any way. If Allah so wills, it is vain, and contrary to Allah to attempt to change the course of events.

When we see moreover how comparatively little Moslem and Christian practices have mingled during generations, we can understand the deep rooted love and adherence to all things Moslem, and a corresponding disinclination to introduce any Christian practices. Modern medicine and surgery, although taught in Constantinople Turkish College of Medicine, among the people of the interior has fought its way not unopposed, and today one meets constantly those who are unwilling to come to the foreign doctor, preferring their own primitive methods of cure. We find many superstitions relating to their belief as the relation of sickness to evil spirits, or methods of propitiation for sins, as prevention, or cure of disease. The wearing of blue beads is very common—these beads made to resemble somewhat an eye are called evil-eye beads, and
are used lest the evil-eye cast its spell upon the individual. One must use discretion not to call a Moslem baby a "pretty baby", for that is apt to cast the evil eye upon it. One must say "what an ugly child you have".

Almost universally the villagers wear a charm about the neck which consists of verses from the Koran sewed up in cloth, or it may be encased in handsome carved silver case. Often patients come in with common twine tied about the arm, leg, neck, or body, to confine as it were the sickness, so that it does not spread to other parts of the body.

As one travels along the road one may see a shrub or tree so laden with small bits of rag tied on the branches that the tree itself is scarcely visible. These bits of rag are visible evidence of the visit, while the tree marks the place of some holy grave or holy place. In one place, I saw the source of a stream issuing from the rocky base of a mountain, this stream within fifty yards from its source was a rushing torrent, which widened into a stream of considerable size, watering a vast plain. This stream as a bearer of blessing to the region is visited at its source, and among the crevices of rock are stuffed pieces of rags in great number, by visiting Moslems. At some holy graves one may see a worn bone, which has been used
innumerable times by pilgrims who take the bone and rub it over the body for its supposed curative effect. Earth is taken from the holy grave, or near by, and streaked across the forehead. Sick ones are brought to such places, where their sickness are supposed to be taken away.

At the Turkish mosques there are special days when for instance children may be brought for healing. On one of these days the wife of the writer happened to be passing a mosque, in the enclosure surrounding which were mothers with their sick babies, seeing the doctor's wife, they cried out "here comes the doctor's wife, lets show our sick children to her", which illustration shows their willingness to substitute the doctor's wife for their old superstition.

Take for example the following illustration: A man while getting a verse from the Koran to hang around his neck, approached one of our missionaries who happened to be nearby, and asked for quinine. "What's the matter with the verse," asked the missionary. "Oh that is alright, so is the quinine," was the reply.

In the midst of such superstition, it is only natural that quacks and quackery should flourish. These quacks have as a rule some little knowledge of medicine and commonly use such means as poultices, etc., using as material anything from flaxseed to manure; some things
frequently used are a black hen with feathers left on. Black dove split open and laid over the part, a form of curry-like powder, green leaves, fried eggs, various preparations of tar, etc. Setons are used by slitting the skin below the knee and inserting a pea. Leeches are very commonly employed, also the scarifier with cupping, blistering, taking blood freely from veins of arm. These and many others show the state of prophylactic and curative measures employed by the village doctor or quack. Such practices are not to be understood as the practice of the regular licensed physician of the interior, of whom we will speak later.

**Medical Organization in Turkey.** In the military department of government, the medical organization is modeled much after the German system. Military doctors and surgeons are, generally speaking, men of fair ability. Outfits used in actual service in the army are of the best & Burroughs Wellcome & Company of London. As in other things Turkish, however, orders from the top often fail of execution. For instance, in vaccination for typhoid in the army, it seems to have been done in a very cursory manner, perhaps a few vaccinated from each regiment. First aid packets were distributed to each private soldier with instructions as to use. The weak link in military medical organization was as in civil
medical work, the inadequate execution of preventive measures, so that the efforts put forth to supply outfits is nullified by the lack of protection against disease, which among the Turkish troops has been many times more deadly than bullets. Insanitary conditions in barracks, and at the front has resulted in fearful outbreaks of cholera and dysenteries, with many hundred of victims. Inadequate food has made the soldiers an easy prey to disease. In some malarial regions the suffering from that disease was very great, while exposure of unrelieved soldiers in trenches resulted in many cases of gangrene, requiring amputation of limbs. Pharmacists accompanied each regiment, being supplied with a fair supply of ordinary remedies, the difficulty, however, being to replenish the supply as required. The writer has seen many victims of tuberculosis, of chronic nephritis, whose diseases were contracted while in military service, the common soldiers realizing the privation of military duty, and fearing disease worse than battle, have sought by every subterfuge imaginable to escape military duty, Flight to the mountain fastnesses where to gain a living they are forced to brigandage, emmigration by hoardes to America, even maiming themselves by injury to their "trigger ginger", or straining to produce hernia, or
anything to secure exemption. Patriotism as such is not entirely lacking in that country. It is straining ones imagination a bit, however, to expect Christian races under Moslem rule to exhibit any great devotion, while they are asked to join the Moslem army and fight against Christians, even as in the case of the Balkan War, Greek subjects living in Turkey against the Greeks from Greece.

The civil medical organization is also well organized along general lines, with boards of health and other municipal physicians, in every city, sanitary inspectors, veterinary surgeons, government hospitals, quarantine rules and regulations, schools of medicine, pharmacy, midwifery, nursing, etc., but it is again the missing link between organization and execution, a holding of office rather than a rigid performance of duty, a serving the desk rather than hustling to clean up unhygienic homes and cities, a discussing of the problems of public health rather than the actual accomplishment, until with all the paraphernalia of organization we see little actually being done. The Imperial School of Medicine at Haidar Pacha across the Bosphorus from Constantinople is a good school teaching good modern work in medicine and surgery, the missing element to make the work
permanently efficient, is a lack of post-graduate study on the part of physicians. A tendency to think the top notch of medical learning reached when the diploma is given into their hands, a tendency to be lax or to entirely neglect current medical literature in English, French or German, and an utter lack of medical and surgical journals in the languages of the country.

Of pharmacists and dentists, many hold diplomas of the Turkish schools, while others have secured an apprenticeship as their preparation, after which have started independently. In villages, the barbers often do more or less openly, a medical practice of considerable amount, the quality of which, as would be supposed is questionable.

The Turkish government hospitals have not been a success in the interior, because of bad management. They are as a rule good substantial buildings of brick or stone but conducted more like an inn than as a modern hospital. Nurses are untrained, the patient's friends must bring food, etc., for the patient, all camping out together in one of the bare rooms of the hospital, even beds, bedding, etc., in many instances have to be furnished by patients and friends.

Foreign hospitals in the cities of Constantinople, Smyrna, Beyout, etc., are many and well equipped, but
for the interior, the foreign hospitals of any repute with very few exceptions, are American mission hospitals established under the auspices of the A.B.C.F.M. of Boston, Mass., which is the Mission Board of the Congregational denomination in America. One notable exception is the splendid private Armenian hospital at Aleppo, which has modern equipment including x-ray apparatus, etc.

The American hospitals of the interior of Asia Minor include those of Aintab, Adana, Cataraea, Diarbekir, Erzroom, Harpoot, Ronia, Mardin, Massovan, Sivas and Van. In such places as these American hospitals are established with American physicians at the head of each institution, each hospital having a large unrestricted territory, and accommodating thousands of patients yearly, and in nearly every case performing from 500 to 1000 or more surgical operations each per year. The equipment of these hospitals although lacking much to be perfect, yet lack none of the essentials for good work, and are as we shall see below accomplishing much as model institutions in that land.

Physicians of Turkey, and their work. The foreign physicians of Turkey and Egypt are banded together in the American Medical Missionary Association,
but aside from this organization I know of no physician's association in Turkey, either native or foreign. This whether a cause or an effect of the inclination of the native physician, Moslem or Christian, to work at variance with one another. Egotism and a generous amount of conceit being a part of the general equipment of the physician as a rule. The native physicians of Asia Minor are mostly Turkish, Armenian or Greek, and for the most part general practitioners of medicine and surgery. Few native doctors of this region have tried to specialize.

In point of diagnostic ability the native general practitioner is fairly good in observation and deduction, as a rule, inclined to diagnose from symptoms alone, and also to make snap-shot diagnoses. To jump at a diagnosis from a prominent symptom, for example, albumen means nephritis, and quite likely the examination stops there.

In a case of abdominal pain, give a laxative, and some analgesic drug. Joint pain treat for rheumatism. Irregular fever try quinine, etc. He is too much inclined to do as the Turkish woman often asks, "Feel of my pulse, and give me the remedy". However, in examining most patients he will take the patient's temperature, pulse, auscult his chest with a stethoscope, and perhaps make examinations of the
urine for albumen and sugar. The ordinary physician has no microscope, makes consequently no sputum examinations for tuberculosis, no blood count, or microscopic examination for parasites, or blood diseases. No urine sediment examinations. He does no tissue examination histologically. The writer made what was probably the first microtone cut specimen for histological examination of tissues that was made in the interior of Asia Minor. As electricity is not available he has no x-ray machine, or any electrically operated instruments, such as cystoscope, etc. A blood pressure apparatus I have never seen used in native hands. Bacteriological work for diagnosis, manufacture of autogenous vaccines or bacterines, Widal test, Wassermann test, cultural or microscopical test of spinal fluid cultural or inoculation tests, or animal experimentation of any kind, are not done by these native physicians.

Scientific research work and contribution to medicine, or medical literature, have not as yet come from that section of the world, from native physicians.

As would seem natural, where the medical profession works as so many independent units, matters relating to public health, sanitation, and important problems which concern the general welfare, remain practically untouched.
The general practitioner views his profession from the commercial standpoint, much as many other business or profession might be viewed, and the question apt to be asked concerning a patient, by a fellow practitioner, is, "How much did you get for the case?" Such independently working physicians keep the standard of medical ethics below the normal standard. There is not to as great an extent as in this country the co-operation in the profession where physicians mix and mingle with fraternal goodwill, but the feeling for the brother practitioner seems to be that of a competitor for the business that would otherwise be so much gain. He must therefore try by all means to damage his competitor. Physicians as a rule have good standing among the people, and in comparison with his neighbor is apt to be well to do financially. Fees, medical or surgical, instead of conforming to a fixed scale of prices, consist of getting what he is able from each patient, according to the ability of the patient to pay. City visits twenty-five cents to one dollar, operative fees, two to three dollars, to fifty dollars, rarely more. He generally does also a fair share of philanthropic work for the poor, although work for the poor is not systematically done.
The above gives an idea of what remains for the American physicians. With no hospitals to work in, and no hospital organizations, trained nurses etc., modern surgical work must be done by the foreign surgeons. The native physicians are employed as associates or assistants, or in certain hospitals allowed to bring their patients and operate in the foreign hospital. The foreign physician is looked to as a neutral party, and much sought as a consultant. His treatment by native physicians is almost invariably courteous and considerate.

It is left to the foreign physician to set the standard of medicine, surgery, and nursing, in fact his institution is looked upon as a model by the physicians and people. To give an idea, the writers own hospital may be described as a type of several American hospitals of much the same sort in Asia Minor. The American hospital at Talas near Cesarea, is a stone building of four stories, capacity 85 beds, general ward for men 20 beds, general ward for women 20 beds; small wards and private rooms make up the remaining. Living rooms and nurses quarters are on the fourth floor. Operating room on third floor, a well equipped modern operating room, sterilizing room, Kay-Scherrer Co. steam sterilizer is used. Beds and bedding - Bernstein Hospital Bed Mfg. Co., Philadelphia,
equipment, consists of the essentials, leaving out many things which are considered essential in this country. The nurses, the superintendent, is a graduate American registered nurse from the Illinois Training School, Chicago. The surgical nurse is a graduate nurse of Greek nationality, the ward superintendent a graduate Armenian nurse. Besides these there is a corps of undergraduate nurses, orderlies and helpers. In connection with the hospital is a separate stone two-story building containing dispensary, pharmacy, clinic rooms, etc., where all patients are examined preliminary to their entrance to the hospital, and where regular daily clinics are held for patients of all classes. In this institution last year were seen 3500 individual patients of whom two-thirds were Christian, and one-third Moslem, of these 806 were received into the hospital, the proportion of Moslem and Christian being about the same for the in-patients. The surgical work included 1165 surgical operations. The nearest hospital worthy the name is the American hospital at Sivas, which is three days wagon travel from Cesarea. This given an idea of the territory ministered to by this hospital.

The summary of the American hospitals in Asia Minor might be of interest as indicating the volume of work done. Their importance as examples to the people of modern medicine and surgery, or as educational centers,
for the spread of the doctrines of preventive medicine and hygiene, may well be imagined. Not only do these hospitals actually care for the patients thus enumerated, they also give regular courses of training for native nurses. Some of the graduate nurses of such schools have now high positions in the nursing profession, and this too in opposition to feeling in that country that nursing is a menial sort of work, and not quite proper at any rate for unmarried girls. Special training of these nurses in obstetrics and midwifery has been a great value, and is a line of work which gives much promise in the future, as the need for such work will be seen below.

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Table of A.B.C.F.M. Hospitals in Asia Minor

Nursing as a profession for the people of Turkey was first taught by the American Missionary physician and is still so being taught. The courses of training are similar to courses in the United States, including three years of didactic and practical work in general nursing, surgical nursing, laboratory methods, etc.

Up to the present time only Armenian and Greek girls
have been taught. Graduation from a school of high school grade is a requirement for admission. Classes are taught for the most part in the English language.

The value of such training as a means towards the problem of preventive medicine need only be mentioned.

Outside Constantinople, Beyrout, schools for midwifery do not exist to my knowledge. In the cities and towns of the interior it is impossible to find a trained midwife, or trained nurse of any sort unless by chance one trained in foreign schools. The status of midwifery in Turkey is one of the stains upon her medical history. The people are being very slowly educated to the point where they will call a physician for an obstetrical case, except in cases where complications are expected, or more frequently after the case is seen to be beyond the sphere of the midwife, in which case, it is in many cases beyond the power of any physician to prevent the already infected area becoming a threatening menace to the life of the patient. The midwives are simply women who take up this work from choice as a matter of pecuniary profit. No knowledge except such as the neighborhood gossip affords, being necessary to the practice of this profession. Knowledge of the simplest rules of asepsis is wanting; rubber gloves, sterile or unsterile are not worn, while frequent digital examinations are the
invariable rule, simply to see how the case is progressing. The miracle is, that in the place of hundreds in every locality being infected, there should remain any mothers still uninfected. Some practices of these so-called midwives are inhuman in the extreme. "Doctor, come in quick, I have been working away here until I am all tired out, I guess it is too much of a job for me". On the floor lay the patient, leg presentation, the infant already dead, and the protruding limb lacerated from the brutal work of the midwife in her attempt to save a life!" One other case in a Turkish village illustrates the same malpractice of the midwives. Being called to a small Turkish village I found a case of pregnancy at term, the woman having been in labor some 36 hours, and having an aggravated case of osteomalacia with such deformity of the pelvic bones that spontaneous labor was out of the question. Three or four midwives had been called in, and seeing the futility of ordinary means, they had made such violent efforts that the pubic symphysis had separated, tearing in addition a great opening through the vaginal vault into the abdomen. The case was beyond human aid, but lingered in agony for several days before death relieved her.
Turkey and Diseases.

Bearing in mind the purpose of this paper to deal with these conditions which relate to our problem of preventive medicine, we will take up in a fragmentary way some of the disease conditions of the people of Turkey.

Considering the right of the child, and the importance of the subject of eugenics which has secured such a hearing in America, we deplore the fact that eugenics has had slight consideration in Turkey. Marriages are generally at an early age. The girl is considered of marriagable age as soon as she becomes developed, and the menstrual life begins. The marriages are arranged by the parents of the contracting parties, and especially among the Moslem people the bride and groom do not see each other until the wedding ceremony is performed. Intermarriage is rather carefully guarded against. The Turks have what they term degrees of blood separation within which limit marriage is unlawful. Physician's examination as to physical fitness for marriage is not ordinarily made. When the physician is consulted it is almost invariably as to the possibility of child-bearing, which is practically the only consideration in these marriages. The position of the Turkish woman in the home is shown by the paragraph above. She is under the control of her mother-in-law, whose word is absolute in the home, the bride not daring even to
speak unbidden in her presence. Such thing as restraint between husband and wife is for the most part unknown, many means being taken however to prevent conception, or it may be repeated abortion produced by the patient herself or by midwives, who make such work a part of their profession. This work is accomplished by means of uterine tents, which only too often are the cause of chronic invalidism of the patient. In one case the writer saw where the patient attempting to place a tent in the cervical canal placed it in the urethra, slipping back into the bladder it was lost, and remained in situ for years during which time an enormous urethral and vesical calculus formed about this stick as an axis.

The obstetrical work done by native physicians in dangerous, not so much from the ignorance of asepsis on the part of the physician, as in the practical impossibility of doing good aseptic work in such homes as he finds, with no previous preparation for emergencies. The physician is called, he must apply forceps, perform podalic version, etc., while more than likely in all the house not a drop of sterile water, or even a clean receptacle, a clean sheet, or any conveniences may be found. For sterile water, as in a case of my own, the supposedly safe water was brought in a small wooden trough, various
pieces of stick, straw, etc., floating on the surface. In cases of deformed pelvis it is difficult to get the cases for clean Cesarean section before they are already infected by repeated digital examinations.

Obstetrics viewed as a surgical procedure, best treated in the modern hospital, is only so considered by the comparative few who are educated and progressive. Obstetrics, because of its value as a demonstration of preventive medicine, is given a prominent place in nurses training, and in hospital work, the difficulty being the education of the people to depart from the custom of their ancestors in such cases.

Complications due to maternal defects are not more common than among our own race, as far as our observation goes. Osteomalasia however (an exceedingly rare deformity in the United States) is seen rather frequently. Personally, I have had about five cases a year of this disease. Many obstetricians of extensive practice have never met a case in the United States. Congenital defect of the female genitalia is not extremely rare. Atresia vaginae, infantile uterus, and sterility in the female from congenital causes, one meets perhaps somewhat more frequently than in this country. Sterility in the male, female, or both sexes, due to the effects of gonorrhoea, one finds exceedingly common.
Families as to number are limited by deliberate attempt at prevention, by gonorrhea, by attacks of puerperal sepsis, by criminal abortion, and by syphilis disease, causing many and repeated miscarriages. The number of surviving children is also terribly cut down by the infant mortality due to a number of causes. Asphyxia at the time of birth is common, due to neglect or lack of skill on the part of the midwife or physician. In many cases the child is unwelcome, merely considered so much added burden in the home, and more attention is paid to the needs of the mother than to the child during the critical childbirth time. In one of my own cases of threatened eclampsia, the child was rapidly delivered, cyanotic, and apparently dead. A group of neighbor woman looked on in amazement at the process of resuscitation of the child, which before success finally crowned out efforts, brought forth such remarks as "why don't he let the child alone, its dead, and anyhow the mother doesn't want it. Why don't he tend to the mother, there are plenty of children", etc. The number is further limited by the diseases of the newly born, particularly pneumonia, or pulmonary congestion. The method of caring for the newborn differs from our own methods in several particulars. The cord is tied with any sort of string,
cut with unsterile scissors, the baby rubbed with salt, sponged and wrapped in swaddling clothes. Underneath the naked body is placed a large quantity of finely pulverized earth - this in place of the diaper cloth - next comes wrapping after wrapping, the child being immobilized as though in a plaster cast. Arms and legs included in the wrappings. Except to change the earth occasionally, the child is kept thus for several weeks. The head from being in one position is generally flattened at the occiput, and I have seen many cases where the flattening has been oblique from the head being inclined to one side. This peculiar lopsided shape of the cranium being very noticeably even in the adult.

The infant is given no water, but allowed to nurse whenever it grows restless, that being the rule during the whole nursing period. No system of nursing by schedule being thought of. The so-called "baby comforters" are used to some extent. The native style comforter being a piece of "Turkish delight" candy, wrapped in a piece of gauze. This is given to the baby of a few days old. Infants are nursed for one to two years. Often a child of 18 months to two years will be suckled, and at the same time will be given candy, bread, apple, in fact anything even to raw cucumber. When the child reaches the age of one year the parents seem to take it for granted that it may eat anything. If the suckling child
does not thrive on mother's milk, cow's milk, or goat's milk is given, generally diluted half and half with water. Arrowroot is used considerably, and in cities Nestles plain condensed milk, Mellin's food, etc. These are not commonly used. The practice of employing a wet nurse is not unusual. The tendency is to change the food as soon as the baby becomes ill, and to change from one thing to another as neighborly advice is given. Almond oil is used a great deal, as is also castor oil. Parents have but little control of the child, giving it what it cries for in spite of the advice of the physician; saying helplessly "What shall I do, the child cries and wants it". After the nursing period, or for infants requiring artificial feeding, there are no milk depots such as have been established in our cities. Boiled milk is given, the bottles, or whatever used as receptacle for the milk, being used unsterile. As expected intestinal disorders are the cause of a great many deaths during the first year of life. The ordinary parent looks upon this whole matter in a social manner, grieving with genuine parent love for offspring, generally speaking, but expecting that about one-half of all children must die during the first year, they soon stifle their grief.
The neighbors testimony all bearing witness of their own similar misfortunes, and it is accepted as the will of Allah. Among Moslem families male infants seem more welcome than female. A father often giving as the number of children, the number of boys only.

One of the greatest of the many problems of the physician is the reduction of this frightful infant mortality. A trained midwifery, education in care of the child, and the adoption of modern methods of child feeding. The period of childhood is beset with the diseases common to that time of life, but without the influence of an organized medical body, an effective quarantine against infectious diseases. More than all else, without the general education of the public in matters of health and disease, until the common people attain to such knowledge as is common to every one, even rural in the communities in our United States, we will find the ravages of infectious and contagious diseases taking their full quota of human lives year by year. I shall speak later of some epidemics which have come under my personal observation.

A common condition is to find a child of say two or three years of age, which the mother says "does not get along". In spite of everything she does the child grows weaker, until she brings the child in a marasmic condition, diarrhoea, alternating it may be with constipation,
feverish, and not able to assimilate its food. The mother gives castor oil, gives milk a day or two, changes the food with the advice of each visitor, takes one physician's powders or pills, one or two doses do no good, she has no great faith in the physician, goes to another, etc., until the case gets beyond control by the best of scientific management.

Noma is a condition not infrequently seen, and is a direct result of neglect in cleanliness of mouth, teeth, etc. The very small percentage of recoveries show great gaping defects in lips, cheeks, jawbones, requiring most difficult plastic surgical repair.

Injuries, fractures of extremities, and skull fractures, are frequent, and in most part preventable by improving the condition of streets, guarding the flat house roofs, etc.

Beyond the period of childhood the principle of the survival of the fittest is still applicable. Digestive tract disturbances, diarrhoea, dysentery, indigestion, etc., as a result of the coarse foods, little mastication, appendicitis, strange to say seems less common than in the United States.

The Respiratory Tract: Exposure, improper footwear, badly ventilated houses, sleeping with head covered with heavy quilts, sleeping in living rooms
with vitiated atmosphere, and heated by braziers of coals, makes respiratory troubles common. Bronchopneumonia among children especially, lobar pneumonia, chronic asthmatic and bronchitis affections developing with great frequency into emphysematous conditions of chest, and the very frequent onset of phthisis, is the incomplete list of gruesome enemies of sanitary houses and hygienic living.

Skin Diseases: Scabies, eczema, psoriasis, ringworm, pediculosis, are all exceedingly common, and are seen in the most extreme and aggravated form from long neglect or ineffectual treatment, and from the standpoint of prevention, are nearly all preventable by observing the ordinary precautions against skin infections, and strict attention to cleanliness.

Eye, ear, nose and throat affections - show a few features of special interest in Turkey. Trachoma known as a disease of the Orient, and one of the diseases which forbids its possessor entrance in to our country. It is seen all though the Turkish Empire, more universally in Southern Asia Minor and Syria and Egypt than to the north. As a causative agent of blindness, partial or complete, it has few rivals. Cases untreated or unscientifally treated almost uniformly showing corneal opacities from pannus formation, cicatricial formation in the conjunctiva supervening in the later stages of chronic improperly treated trachoma, produce by their contracting scars entropion of lids, with a turning of the ciliary margin of the lids directly in upon the surface of the
cornea, where its constant scratching irritates the cornea to the point of severe ulceration. The prevention of trachoma in Turkey will be a stupendous task, involving the entire mode of life and habits of the people. The whole problem comes back again to the insanitary homes and unhygienic personal habits and ignorance by the masses, of the common rules of hygiene and asepsis.

Small-pox — as a cause of blindness is not so much seen in the United States, due to more or less general vaccination, and quarantine regulations. In Turkey however, quarantine is not practiced at all in villages nor in many cities, while neglect of the eyes during the eruptive stage of the disease causes ulceration, a general keratitis with complete loss of vision and an atrophy of the bulb. This disease attacking the children and infants seems the more pitiable as it maims the victim at the very beginning of its life, and is inoperable. Some of the saddest cases in my experience are such cases of blindness, parents come in fond expectation of having their child cured by an operation by the foreign doctor, not distinguishing cataract or other operable forms of blindness from this one mentioned. Ophthalmia neonatorum (blindness from gonorrheal infection at the time of birth) is so easily prevented that one would
suppose the practice of instilling silver solution into the eye of the newborn babe, would become a routine procedure in every country. It is not because the native doctors are all ignorant of the effect of the neglect of this precaution, but due more to the fact that the physician does not see the baby in most instances until the disease is in its aggravated form, and the midwives who attend the confinement cases do not appreciate the value of preventive measures. The midwives of Turkey are a prolific source of disease, rather than preventers of disease.

Ear disease comes to our attention most frequently as a sequel to acute infectious diseases of childhood. Purulent otitis media of many years standing is frequently seen in children. Mastoid disease which has been neglected until the pus has perforated over the mastoid bone and formed a sinus, is not rarely seen. Deafness, partial or complete, is naturally a frequent sequel. The only school for the deaf and dumb in Asia Minor has been organized within the past five years by the American Missionaries at Marsovan, and is doing a successful work. Very often patients come complaining of partial deafness, head-noises, etc., when the cause is found to be impacted cerumen, which completely blocks the external auditory meatus.

Diseases of the nose and throat are neglected in many cases, care of turbinates, tonsils, adenoids, etc.,
being put off until very evident trouble develops.

Articular rheumatism is quite frequent, but how much is to be attributed to the tonsil as a gateway of infection is still disputed. Diphtheria infection occurs, but not with the frequency one would suppose. The habit of eating yoghurt, or the artifically soured milk (similar to the Bulgarian soured milk) which is universally used in all homes rich and poor, may have an inhibitory effect in preventing the more frequent occurrence of throat infections—particularly those due to bacillus diphtheriae, as the bacillus lactic acidi has been found efficacious in overcoming diphtheritic infections.

Genito-urinary diseases, which fall into the preventable class are extremely common. Nephritis from exposure to cold—teamsters, farmers, who work in irrigation ditches standing for hours in cold water, donkey drivers who are exposed on their journeys from city to city in all kinds of weather. The nephritis following infectious diseases, particularly scarlet fever is seen much among the children.

Calculus formation in the urinary bladder is frequent in children, and often neglected until the vesical irritation is excruciating. Repeated formation of stone in the bladder is seen occasionally. The writer operated in one case for the fourth reformation
of stone in the bladder of a man of 65 years.

The venereal diseases. Syphilis and gonorrhea are seen throughout all parts of Turkey. Syphilis has invaded certain towns to the extent of 80 to 90% of the population, it is said on good authority. It is largely innocent from the standpoint of etiology, passing from person to person through the medium of common eating utensils, towels, public drinking cups, the "nargeli" or Turkish custom of smoking through a long tube—the mouthpiece being passed on from one to another of the group. Some of the large cities of Turkey are said also to be among the most immoral in the world, prostitution being openly carried on by foreign races. As practiced among Moslems it is in a more hidden form, and not the open public house. Gonorrhea is particularly frequent in the army, although it is seen among all classes, and is the most frequent cause of sterility and accountable for untold suffering in the female—localized pelvic inflammation, pyosalpinx, etc., are exceedingly common. In some regions where work is scarce it is the custom for the men to leave their families, going themselves to other cities where work is to be found, and remaining away from their homes for months or years at a time. This is a real menace to domestic life and happiness in many regions, resulting in disloyalty in both the wives as well as the husbands.
Diseases of nervous origin: Contrary to the common supposition, neurasthenia leads the list. Neurasthenia and neuroses according to the writer's experience, are not a result of our complex civilization and our American hurried mode of life. The stolid uneducated, poor classes of Turkey show it to an equal, if not greater extent than the highly strung citizens of the metropolis. It seems rather a condition resulting from restriction of home and social life. Life in prison-like homes where the occupant lives a life of morbid introspection, with no wealth of intellect to occupy the mind, with no interests in life except a few quarrelsome neighbors, and one's own family without books, periodicals or newspapers, without being able to read or write. The housewife of the Orient, be she rich or poor, is a frequent victim of neuroses of many varieties. Ignorance of the law of health and disease, she imagines a trivial ailment of greatest importance.

The prevention of this condition depending as it does on the social, political, religious, educational progress of the country, will be one of the most difficult problems of the country from a preventive standpoint.

A few cases of acute dementia of neurosis origin, so exaggerated that the patient must be restrained by
ropes, have been entirely cured by suggestion.

Nervous diseases of central origin seem no more common than among other races. Syphilis is apparently the etiological factor in a fairly large percentage of cases. The government has not provided in any adequate manner for the insane of the land. The hospital for this purpose under government control in Constantinople being according to all I can learn, nothing more than a place of detention without scientific study of the cases, or modern medical treatment. The imbecile class are, as a rule, allowed freedom, and are the butt of ridicule by the boys of the streets. In connection with the Syrian Protestant College at Beyrout, Syria, a well equipped modern hospital is devoted to the nervous diseases, but in a country where travel is difficult, the people poor, one hospital can only reach a very small percentage of the needy of this class.

As to the so-called ductless gland diseases: Goitre is not endemic as in certain regions of Switzerland, for instance, exophthalmic goitre is comparatively rare. Acromegaly, cretinism, etc., are rarely met.

Muscular, and skeletal system diseases: Muscular and articular rheumatism is frequent and is very frequently complicated by endocarditis.

Bone and joint tuberculosis is many times more frequent than in the United States. Knee and ankle joints seem
particularly prone to this infection, and the disease progresses so far before the surgeon is consulted that extensive joint resections or even amputation is needed.

Syphilitic caries is very often seen, and is often in the form of multiple caries of various bones. Osteomyelitis following typhoid infections are not rarely seen. Tubercular caries of spinal column is frequent, and pitiful in the extreme, as it utterly incapacitates the sufferer, making him a burden to friends and community. The writer has recently been operating on this class of patients, who present themselves when the case is favorable from operative standpoint. The operation consisting of transplanting a strong bridge of bone taken from the shaft of the tibia, into a groove prepared by sawing and splitting the dorsal process of the spinal vertebrae including the diseased vertebra and two vertebra on either side of the diseased part. In a series of eight cases the writer has had encouraging results, the patients being able to do housework, in fact everything, the spine being of course immobilized at the point of operation, which is the result to be desired in these tuberculous cases. A form of caries generally involving the inferior maxillary only, is a result of mercurial poisoning from overdoses of mercury, when used
as a treatment of syphilis by the method of fumigation. After such treatment sometimes practically the whole horizontal ramus of the lower jaw will slough off and come away, leaving terrible deformity.

Among other diseases of interest from the preventive standpoint, anthrax should be mentioned, as each year in the autumn a number of cases are seen among shepherds, farmers, butchers, or wool-handlers. This infection is supposed, among the laity there, to be due to the bite of an insect. The infection starts generally around the eyes producing a dense board-like infiltration of the eyelids on both sides of the face. So dense is this infiltration that sloughing of great gangrenous areas from the eyelids takes place, which after subsidence of the swelling and healing of the sloughing areas, produces most marked examples of ectropion with contractures and deformity of the eyelids. For the cure plastic flaps are needed to supply the parts lost by the deep sloughing.

Leprosy although not quarantined, is not very common. The anaesthetic and tuberculous forms are met with, and are often confused by the physicians of the country with syphilis. Treatment by potassium iodide produces an aggravation of the leprosy, and is absolutely contra-indicated. Among the villagers of Turkey the
opinion prevails that the eating of certain fish, or fish from certain streams, is a cause of leprosy. This seems to have no foundation whatever in fact. In spite of no attempt at isolation of lepers, the disease does not appear to be on the increase in the country. Lepers are not avoided particularly, and one may see a leper working along with other workmen and eating from the common dish with others.

Erysipelas is not uncommon and is usually traced to fissures about the ala naresi, being infected from finger nails. In several cases known to the writer the disease has pursued a fatal course, a form of streptococcus infection of the throat causing the fatal outcome.

Malignant diseases. As the etiology still evades patient research, does not particularly concern us here. Carcinoma of the lip is quite common, whether the well-nigh universal use of tobacco plays a role or not, is difficult to say. The pipe is not used, but wooden, amber, and other sorts of cigaret holders are commonly used. Carcinoma of the stomach which is common may have as a predisposing factor, ulceration, gastric dilatation, etc., caused by overeating or careless eating of coarse foods. Gastric dilatation being specially frequent, is due to pyloric ulcer with pylorospasm, and this in turn may owe its origin to the
drinking of hot soups, tea, etc., as is the common practice.

**Anomalous and Congenital Defects:** Congenital hernia is, I should say, more common than with the American people. Taking congenital and acquired hernia, it is variously estimated at 20 to 40% of the male population of soldier age, among villages of the interior. Hypospadius, epispadius, extrophy vesicae, cryptorchismus, imperforate anus, atresia vaginae, infantile uterus, spina bifida, polydactylism, congenital hip disease, cleft palate, bronchial fistula or cyst, hydrocephalus, have all been seen repeatedly by the writer, but evade our knowledge as to prevention, except as a more rational view of the value of eugenic training will help to eliminate this class of cases.

The last class of cases which we will consider is a class entirely and easily preventable, but affecting nearly an even 100% of the village population of Turkey. In reference to parasitic disease - pediculosis is universal and thought of as a necessary evil. The native houses swarm with bedbugs and vermin, and to think of being entirely free from these pests is beyond an their dreams. It is not infrequent sight to see neighbors co-operating in the hunt for pediculus capitis, or to see travelers by the wayside spending leisure time in picking the pediculus vestimenti from their clothing.
The ascariis and tenia solium are also well
high universal. Santonin and "Liix mass are, as
one doctor expressed it, the trumps to play if one
is in doubt what to give. Hookworm disease is
being investigated in the country. Supposedly a
form of the old-world hookworm will be found.
Echinococcus cysts are found, but rarely. Trichinae
never found, as the people do not use pork in any
form, regarding pork as unclean.

Epidemics and their Control.

The status of preventive medicine in any
country, is shown by the ability of that country to
control the spread of those diseases which if left
uncontrolled assume epidemic form, and sweep like
wildfire through village and city, and in its awful
ravages taking a toll of hundreds, it may be
thousands of those who happen in its path. The
awfulness of uncontrolled disease can only be
appreciated by actual experience in countries where
such epidemics still flourish. Cholera takes its name
from Asia where it is pandemic, and we call it Asiatic
cholera. In Turkey cases of Asiatic cholera are
always to be found in lesser or greater numbers, and
every few years we find great epidemics of cholera in
various districts. Cholera is specially to be dreaded
in the Army, when no adequate provision can be made,
and the condition of the common soldier becomes pitiful in the extreme.

Personally, I have passed through one great cholera epidemic in the year 1910, when in the city of Marsovan, Tehorum, and surrounding towns hundreds of victims were daily sacrificed to neglect. Visiting the city of Tehorum late in the epidemic, I inquired how the cholera was in that city. The reply was "Oh there is not much sickness in our town now, only fifty died yesterday", which in comparison to former days made it seem as though the epidemic had passed.

The first case of cholera in the Marsovan region in 1910 was brought in by travelers. The disease was undoubtedly cholera, but was pronounced doubtful, and hoping that nothing more would come of it, the authorities did nothing about it; however, insidiously and without exciting much alarm, one case here, another there, until the physicians and people awoke to the fact that a cholera epidemic was inevitable. We knew it to be too late, for cases appeared in several separate quarters of the city. Orders were given to boil water, to use no uncooked vegetables, to put lime in outhouses, empty orders, without enforcement. When the epidemic grew so bad that we were all taxed to the limit of physical endurance with urgent calls day and night, the authorities aroused themselves to the extent of calling
a consultation of all local physicians, local health officials and the governor of the province.

The Consultation. The Governor came with his retinue, in great pomp and ceremony, calling a conference of all local physicians including the two American Physicians, and some of the civil authorities. The question of the cholera epidemic and how to control it was discussed. The Governor pompously demanded why such and such measures had not been carried out, gave strict orders for quarantine, for cleaning up the city generally, forbidding the sale of fresh fruits and vegetables, etc., etc., saying that if necessary each house must have a policeman at the door to guard the place. After censuring those concerned for their laxness and inefficiency, the Governor goes back to his own city, his conscience entirely at ease, I have no doubt, and thinking the whole duty of the government toward the epidemic completed. Early the next morning, going to a cholera case in the city, I notice streaks of yellow pain on doors here and there, marking those houses as quarantined. Entering through one of the doors so marked I find a courtyard filled with neighbors, I find my patient past all human aid, and turning to the neighbors I ask why they have violated the quarantine regulations. "Didn't you see the sign on the door", "Oh yes". "Well what does it mean?" I ask. "Quarantine" they reply. "What does that mean?" I ask. "Why, we don't
know, the officer painted the door and said this means quarantine, but we don't know what that has to do with our coming, as our custom is to see if we can help our sick neighbor. Meeting a laborer on the street eating a raw cucumber, I asked him if he doesn't know about the cholera regulation forbidding it. He replies "Well doctor, I don't know anything about cholera microbes, but if there are any on this cucumber I chew it so fine that I'll fix the microbes". A woman comes to draw water from our fountain, and brings a piece of gauze, through which she pours the water to strain out the cholera microbes, as she says.

The ineffectiveness of quarantine in actual practice is paralleled by the methods used for disinfection of travelers and vehicles. On entering a city during cholera times the carriages is halted at the outskirts of the city, by officers who proceed to disinfect carriage and passengers, by using a sort of force pump worked by hand and which throws a jet of spray in the direction, at least, of the passenger. A few squirts of this fluid which smells of crude carbolic acid, and the carriage, driver, passengers, baggage and everything is disinfected! The same thing is done in railroad coaches - a few squirts of the medicated water as the officer passes through the
coach, or perhaps not entering at all squirts the water through some of the coach windows. Such ridiculous performances serve simply to satisfy the people that something is being done to fight the epidemic.

During the epidemic, in various places, detention camps were established. These soon became filled with filthy and odors which made life miserable to the travelers. On one occasion a party of Americans passing through the country were halted at a certain bridge by Turkish guards who approached flag in hand, and commanded the party to halt. A considerable parleying ensued, during which the guards inflexibly maintained their right to prevent travelers crossing the bridge. Finally one of them turned about and pointing up the stream said, "You see that buffalo up there crossing the stream?" "Yes". "Well, up there the water isn't very deep, but you mustn't cross this bridge".

Even in the face of epidemic disease the religious customs of the people prevent their putting aside such customs as are distinctly dangerous. For instance, the Moslem law bids them wash the dead body thoroughly before interment. This they do, and accompany the corpse to the grave no matter how infectious
the disease of which the person died. The grave itself is very shallow, and the position of the graveyard often a menace to a part of the city, because of wrong drainage, etc. Popular feeling and ignorance is a real force with which to contend. A certain native city physician in a certain city of the interior for weeks feared for his personal safety, because of his advocacy of such measures as forbidding the sale of fresh fruits and vegetables in the open market, and such like ordinances objectionable to those whose ignorance allowed them to see only their immediate benefit in the gain from the sales of fruits and vegetables. How is it possible to convince a man ignorant of all the principles and facts of germs and asepsis of the danger in a basket of luscious cherries, or a fine head of cabbage, such as he has used all his life. Disease is but a visitation of Allah, what has man to do with it?

We would naturally look to the following agencies for the control of Asiatic cholera.

1. The civil and military government authorities.
2. The sanitary inspectors, and municipal physicians.
3. The medical practitioner, both native and foreign.
4. The active co-operation of all these agencies in attempting to locate the source of the epidemic, and to enforce adequate quarantine and disinfection.
The practical working out of such co-operation is illustrated by the foregoing instances, and is seen to be woefully inefficient. The failure seems to lie in the attempt to control epidemic by transporting modern ideas of control as worked out in European countries, and making a spasmodic effort to enforce such ordinances upon a people who have had no training in even the fundamental facts of healthful living, of sepsis, germ life, methods of transmission of disease, in the whole modern science of preventive medicine. Sanitation and hygiene remains a closed book to the mass of common people, as in the instance above, the yellow paint meant "quarantine", the people knew that, and yet they could not see why they should not crowd in to "help" the patient according to their custom.

These problems compel us to fall back time after time, and from varied experiences to the same discouraging fact - the unpreparedness of the people to appreciate the modern conception of disease.

Typhoid Fever Epidemics: While Asiatic cholera tends to revisit a locality only once in several years, conferring it seems a sort of territorial immunity by sifting out the easily susceptible from the less susceptible, and leaving as it were, the fittest to survive. On the other hand typhoid fever is found
in the same locality year after year, attacking a small percentage of the inhabitants of such localities each year. In the region of Cesarea, small number of typhoid cases may be found any month in the year, due no doubt to the presence in the community of a relatively large number of typhoid carriers, the real epidemic breaking out in late summer and continuing through the fall months. Such epidemics are traceable to certain infected water sources, to infected sewage water, which is used to water the vegetable truck gardens, such sources of local epidemics being traced not by bacteriological water analysis, but by the relation of the infected district to its water supply. In Cesarea the city water supply comes from the snow-capped Mount Argeus (12,000) and its broad foothills - mountain water pure as crystal at its source, but flowing in open or partly covered ditches, and passing through several small villages, the inhabitants of which village uses the stream as the public wash-house for clothing, utensils, and what not. The water finally reaches Cesarea robbed of much of its purity and freshness. Cisterns are quite commonly used, and these are filled during the night hours from this stream, the Turkish idea being expressed by their proverb: "Water which has passed over twelve stones is pure." When
typhoid breaks out in epidemic form the people are urged to boil the drinking water, but to boil water takes fire, and fuel is expensive, and the poor people leave their fate to the hands of "Allah", not hesitating to drink from ditches or pools by the roadside in case better water can not be had.

The typhoid epidemic of 1912 in the city of Cesarea was of unusual severity. Several hundred probably is none to high to place the mortality, although we have no data to show the actual number of cases or the mortality rate. The type was severe, many hemorrhagic complications and meningeal complications being seen. The marvel to my mind being, not the number of cases and deaths, but the astonishing number who escaped infection, in the face of such conditions as prevailed, as the following will show. It is the custom for those who have moderate means to go to the surrounding hill country for the summer months. There in their modest summer homes among the vineyards they escape the heat and filth of the city and its accompanying dangers. Being called one day during this epidemic to a case in Cesarea, I found the patient in the sixth week of the disease, and in a practically hopeless condition from typhoid meningitis. The room in which the patient lay opened to a court
where a number of men and women were engaged in
the "Basdirma" industry; this basdirma is a sort
of spiced dried beef of which many hundred tons
are made every late summer in Cesarea for shipment
to Constantinople. Of course flies in myriad number
were attracted to this court, while the basdirma
makers with reeking aprons, and hands unwiped from
mixing meat and spices, would go freely to and from
the sick room, sit a while to talk with friends who
crowded into the room there, "resume their work again.
No attempt is made in most cases to disinfect bed
linen, or more correctly speaking, the rags, and bed-
quilts, which are used until too filthy to endure.
They may then be hung in a court-yard, as I have
witnessed many a time. That this is the invariable
practice in Turkey, is not at all true. Each case is
a rule to itself, the well-to-do being often very
careful and well instructed by their visiting physicians,
but the chain of prevention is broken in so many places
that the effect on the community is not sufficient to
check the epidemic, and it is the failure to enforce
sanitation, etc., in the many poor cases, which fails
the attempt to check the disease. Another example of
this penny-wise and pound-foolish policy, is seen in
the Army. In one region several regiments of soldiers
were deliberately encamped at the headwater of a stream which fed several villages, the soldiers polluting the stream by washing and in other ways. Only after great effort were the soldiers induced to make their encampment elsewhere. Typhoid preventive vaccination is supposed to have been carried out in the Turkish Army during the Balkan War, but reports from their military surgeons, several of whom I personally know, indicate that the orders to this effect were carried out only in very few instances in full. A few men being vaccinated out of a regiment perhaps. I have no means of telling the effect of such vaccination as was done, as statistics here again are not to be found. The results in our own United States army would justify the attempt to make typhoid vaccination a routine and systematic procedure in the Turkish army, where typhoid is always found in smaller or larger numbers. Such epidemics as these emphasize the need of a number of bacteriological and research stations in the interior of Turkey, where modern work in bacteriological diagnosis and the manufacture of dependable sera could be done.

Typhus or Spotted Fever epidemics seem to be much more frequent and widespread in Eastern Asia Minor
from Servia to the Persian border. The etiological relation of typhus to the body louse (pediculus vestimenti) has only been recognized for the last few years, this fact helping much the understanding of typhus epidemics following the army or wherever large bodies of troops are congregated. During the present struggle we are witnessing a terrible outbreak of typhus in the country of Servia, and also in Eastern Asia Minor. In both countries Americans as well as natives have been attacked by the disease. American doctors and nurses in Turkey have shown great heroism in combating the disease among the native people. No specific treatment or protective treatment has been found except preventive cleanliness, which in the case of those in constant attendance upon the sick can not always be carried out in an ideal manner. The use of anisol or napthalin over the surface of the body to prevent the bites of the body louse, seems to offer the surest means of prevention.

Children's Diseases in Epidemic Form: The child which escapes the perils of the newborn and infancy during the first year, enters upon a period of life during which the so-called infectious diseases of childhood hold sway, and take generous toll in human life year after year until it seems that the child
has less than an even chance in the struggle for the survival of the fittest. Such comparatively harmless diseases as measles and whooping-cough are deadly diseases in that country. Deadly because of frequent fatal complications due to lack of proper care during the period of convalescence. The child with measles as soon as the rash disappears, is often allowed to run barefooted in the streets, with the result that broncho-pneumonia develops, and often runs a rapid fatal course. A feeling prevails in that country that every child sooner or later must have these infectious diseases of childhood, and that it is useless to try any means for prevention. We find it practically impossible to isolate cases even of scarlet fever and small-pox in the homes of the people because of this idea. In the city of Cesarea in 1913 several hundred children died as a result of the measles epidemic. Scarlet fever assumes epidemic form in many regions, even attacking adults occasionally, albuminuria following an attack of fever without any visible rash having been observed, has been noted by us in several instances during scarlet fever epidemic. The severe type of the disease was also noted in several cases where the patient died within twenty-four hours of the onset of the disease, and before the rash
had established itself, the body being overwhelmed by the lethal dose of the poison before the body could establish an antagonistic antitoxin.

Small-pox and whooping-cough raged simultaneously in 1914 in the city of Gemerek, both diseases proving fatal to an alarming extent in infants up to two years of age. Small-pox is well nigh pandemic and excepting in the early years of infancy the mortality rate is low. There seems to be a tendency for small-pox to be less severe as time goes on. The practice of vaccination for small-pox is said to have originated in Turkey. It is the common custom in most interior regions to inoculate from the scab or from the small-pox pustule, from person to person, which with the prevalence of syphilis in all parts of the country, the lack of aseptic technique in vaccination, makes it a practice with little to recommend it. Deep scarring pock marks are the rule in recovery from small-pox under native management, while in children the disease is a frequent cause of blindness from neglect in cleaning the eyes, and neglect of corneal ulcerations.

Diphtheria, although prevalent does not often assume the proportions of an alarming epidemic. An observation of some interest in this connection is that made by the writer in noting the beneficial effect of using a spray of lactic acid bacilli for throat
trouble; and a probable effect in preventing what would in all probability be extensive epidemics of diphtheria by the use of "yoghourt", or a preparation of artificially soured milk, identical with the Bulgarian sour milk which has gained favor as a prophylactic food. In Turkey under the Turkish name yoghourt, or the Armenian name matzoon, it is used universally, even in the poorest homes. If milk is obtainable it is usually boiled and the "maya" or yoghourt ferment added to it; after standing in a moderately warm place for some hours the yoghourt forms clabbered milk, is then cooled and eaten in that state, or by some eaten with sugar. It is often strained through a cloth bag after the whey is drained off, and the curd mixed with water to proper consistency, is eaten and is called "strained yoghourt". If mixed with water until entirely fluid it is used as a cooling drink, and is called "iran". Resident foreigners in Turkey almost invariably acquire a liking for yoghourt and iran, and include it in their dietary. Anti-diphtheretic serum is used in the larger cities of the country.

Cerebro-spinal Meningitis as an epidemic disease was seen by the writer in 1909. The diplococcus intracellularis of Weichselbaum was demonstrated in the spinal fluid, and the anti-meningococcus serum of
Dr. Simon Flexner of New York City, was injected into the spinal canal. The success in these cases was rather remarkable. Only those cases were lost which showed the spinal fluid converted into thick pus at the time of examination. Such procedures as spinal puncture are not frequently done, either for diagnosis or treatment, by the general practitioner in Turkey. Aseptic procedures are difficult in the homes of the patients, and hospitals are not available to the practitioner of the smaller town.

Could we express in a word or two the attitude towards epidemics and their control by the ordinary practitioners of the interior of Turkey, we would say that his attitude is more philosophical than scientific, much speculation and consultation as to the source of contagion, and methods of treatment, but little in the way of scientific laboratory methods of research is seen. It is this tendency to satisfy themselves with theoretical reasoning rather than with scientific fact, which keep the general standard of medical efficiency in that country so far behind European countries. So also in the execution of orders for the control of epidemics, it is found more convenient to issue commands regarding water contamination, boiling of water, care of water closets, sewage disposal, sale
of fresh fruits and vegetables, cleaning of streets, etc., etc., than it is to see that those commands are carried out. We consequently find in Turkey systems of sanitary inspection, ordinances pertaining to general health, control of epidemics, reporting of cases of contagious diseases, records of vital statistics, etc., but existing in many localities as so much useless red-tape, without finding expression in actual working efficiency. As an instance of this fact we recall the incident relating to the method of disinfection used in times of cholera epidemics, as related above. Under such conditions records of cases are only partial at most, and vital statistics practically valueless.

Endemic and Pandemic Diseases. Syphilis is pandemic in Asiatic Turkey, the disease being more prevalent in certain regions and cities than in others. Unofficial estimates place the percentage of infection in many villages as high as 90% of the general population. The infection takes the form of tertiary lesions, gummata, syphilitic ulcerations, syphilitic caries of bones and joints, syphilitic glands and abscesses, while the primary chancre and the primary rash are observed in a small percentage of cases. It is probable that the rash appears but is slight, transient, and unnoticed, as
one can illicit no history of rash in a great many cases. It seems probable too, that it is a syphilis of low grade, that possibly the people of the country have a slight degree of racial immunity to the disease, otherwise we should expect much more virulent manifestations of the disease. The greater part is what might be termed innocent syphilis, as far as any relation to immoral practice is concerned. Whole villages being affected, it seems certain that the infection is spread though the use of common eating and drinking utensils, etc., one of their practices being the smoking of the "nargeli". The smoke is drawn through water, the long tubes and elaborate mouthpiece being passed around unwashed from mouth to mouth. Immoral practices are rather common, probably not more so than in European cities in general. Except in large cities mostly situated on the coast where foreign influences is most felt, segregated vice districts are unknown. The public conscience is none to highly educated, and except for the fear of publicity the wild oats sowing period of life is apt to be winked at. Early marriage is the solution of the problem, as worked out in the natural evolution of the country. It is the almost invariable rule, and the unmarried man or woman of thirty is apt to be looked at as suspicious.
Child marriages are not frequent, but marriage practically as soon as the functions of adult female life are established is quite the rule in Moslem cities, and although it deprives the girl of a most fascinating period of her life as she jumps from girlhood to womanhood, without the intervening period for the development of play, culture, education, etc., it is probably the lesser of two evils in a land where the whole status of woman is so far below our Christian standards.

Practically no effort at prophylaxis of syphilis is made, the people looking stoically upon the disease as one of their necessary evils. Treatment is often carried out by the fumigation method, persisted in, in spite of extensive necrosis of bones (mainly the maxillary bones), which not infrequently results in death.

Trachoma is pandemic throughout Turkey, more prevalent in the Southern section of the country Syria, Arabia and Southern Asia Minor than in regions north of those mentioned.

Prophylaxis either by government or people is practically nil, the people having a number of domestic remedies for the condition, none of which possesses any marked efficacy, after the disease is well established. It is undoubtedly spread from eye
to eye through lack of personal cleanliness, use of towels in common etc. Flies may bear an important role here. Often children, more specially the sick, will have a dense ring of flies around the eyes, the patient and caretakers reaching the state where they think "what's the use of brushing them off as they come right back again". Time and again I see deep upcerating sores about the eyelids, mouth, ears and nose filled with full-grown maggots. As American physicians we have a good deal to do with trachoma as those intending to emigrate from Turkey come to us for preliminary examinations of their eyes, to see whether or not they will be able to enter the United States. In spite of the care exercised by the U.S. immigration authorities, cases of trachoma slip through, and among the Armenian, Greek, Italian and Hungarian element in our country we find plenty of cases of trachoma.

In chronic cases of trachoma the scar contraction of the upper eyelid produces marked Entropion of the lid, with trichiasis, the resulting irritation from the scratching of the hairs of the ciliary margin of the lid producing pannus and corneal opacities from slight cloudiness to complete blindness. Patients will often carry about with them a pair of tweezers with which they extract the hairs of the
margin of the lid as often as they keep growing out. An operation by VanMilligen has been performed several hundred times by the writer, and effectively corrects the entropion. It consists of splitting open the tarsal plate of the upper lid and transplanting into the groove so made a strip of oral mucus membrane taken from inside the lip.

There are no precautionary measures taken against trachoma by government or people as far as any knowledge goes. After the disease is well established the local use of sulphate of copper crystal is in common use by native practitioners, and its use a matter of common knowledge among the people - sulphate of copper is called "eye stone" in Turkey.

Tuberculosis. As a pandemic disease in Turkey is a subject deserving the most careful study and care. The prison-like homes are built almost windowless, for greater safety and because of the constant fear of massacre. Poor ventilation, lack of sunlight, dust, filth of the poorer homes, and the lack of care of the patient with tuberculosis, all combine to favor the universal prevalence of the disease. Pulmonary phthisis is common. Certain races such as Circassian being specially susceptible. While
surgical tuberculosis in all forms is so much more prevalent than in our country that it merits especial notice. Tuberculosis of bones and joints one sees constantly. The knee-joint and ankle-joint being most often affected while practically no joint of the body seems incapable of this infection. Pott's disease of the spine is frequent. The writer having used the bone transplant method described by Albee three years ago in 8-10 cases, and with encouraging results. Infection of the ankle-joint have often progressed to the stage where the whole ankle-joint is destroyed, and amputation along will save the patient. Amputation being looked on as a mutilation of the body which may persist even in the hereafter, it is submitted to with much reluctance or refused altogether, the patient preferring rather to suffer and die. The knee-joint cases as a rule require resection, and the production of ankylosis for a permanent cure. Many cases having been seen by native doctors will present themselves with discharging sinuses the result of exploratory puncture and drainage. Tubercular adenitis is extremely common, the cases often presenting themselves with multiple discharging sinuses. Tubercular peritonitis is frequently seen more commonly in young females. The infection in these cases probably
coming by the way of the Fallopian tube, the good effect of laparotomy and exposure of the peritoneal surface to air, being due it is thought to the tendency for the tubes to seal themselves by plastic adhesions to the anterior pelvic wall thus closing the ports of entry for infection.

The city residents as might be expected are much more prone to infection than the villagers, although it is common enough in the villages of mountain regions where the air and water is pure as nature itself. The infection being due to the absolutely abominable lack of attention to sanitation in the home, the huddling together of animal and human occupants, of the building indiscriminately; the focus of infection in many cases I believe to be the infected house itself, as we see instances of tuberculosis occurring in various occupants of the same house, and cases where those living at home become tuberculous, and those living away from home remain free of tuberculosis.

The fresh air treatment has made little progress as yet in that country. Little effort is made to isolate the tubercular patient, even care of sputum is neglected in a great many cases the patient expectorating into handkerchief or old rag which is stuffed into the bed and used until filthy.
Turkey on a whole is a healthful country, as far as climate and natural conditions are concerned, the effect of nature's beneficence being more than counteracted by the insanitary condition of cities and towns. Certain regions are famous as more healthful than others, but patients sent to such localities find it extremely difficult to escape the prescribed rules of society, or to make their homes over into sanitary dwellings.

Malaria may be classed as a pandemic disease in Turkey, it being extremely prevalent, and a disease of terrible severity, claiming thousands of victims yearly from the debilitating effect of the disease. The patient presents himself having had the disease with occasional exacerbation for months. He presents a sorry spectacle, anaemic to the last degree, haemoglobin 10 to 20%, spleen filling abdomen to the brim of the pelvic, mild nephritis, and a fit subject for the attack of any intercurrent disease; a picture which we term malarial cachexia, and which responds slowly to quinine, arsenic and iron treatment. I see no evidence of an immunity, either partial or complete to this disease. It is prevalent in the army, and seems the precursor of severe nephritis; exposure in such cases probably more frequently resulting
in nephritis, than in soldiers free of the parasite. Certain swampy regions near the foothills of Mt. Argeus near Cesarea are so infested that the natives erect cot beds on the roofs of their houses where the breeze keeps away some of the mosquitoes, while for the foreigner sleep is impossible, except with the aid of netting, or escape to mountain regions. Drainage of marshes is sometimes done, but no systematic attempt at prevention of malaria has been general through the country. The use of quinine("sulphate") as it is called) is general and the remedy known to all, but is used in small divided doses generally and not in a way to rid the blood of parasites. Re-infection takes place time after time. The disease may remain inactive until some unusual occurrence, a trip, an operation, etc., often precipitates an attack without a new re-infection, so we have attacks in patients throughout the entire winter season as well as during the mosquito season. Screens are not commonly used, in fact, are seldom seen there.

Neurasthenia is seen in exaggerated form, among the city dwellers, rich and poor alike, due more to the confinement of their prison-like houses, their restricted social life, their ignorance of health and
disease, which results in an exaggerated estimate of the evil effects of trivial ailments, and results too in their living in a very narrow sphere of life, with little knowledge of the outside world, their whole life and interest embodied in the care of home and children. The early spring time seems to bring the harvest of neurotic patients after the confinement of the winter months. Neurasthenia is particularly prevalent in the city of Cesarea, the city is build very compact with narrow streets, and dimly lighted houses, the streets walled high on either side, makes a doleful contrast with our bright American cities of open lawns, parks, broad boulevards and avenues, lined with shade trees.

**Leprosy** is seen as an occasional disease throughout Asia Minor, in both anaesthetic and tubercular form. No effect at segregation is made, and in fact seems little need, as the disease seems extremely feebly contagious, and so far as I can learn, not on the increase. The native people attributed the disease to the eating of fish from certain rivers, no foundation for this belief being found to my knowledge. The disease is liable to be confused with syphilis by the native practitioner.

**Domestic and Personal Hygiene.** The Home. For that beautiful English word home, there seems to be no real Turkish equivalent. It is generally translated "ev"
which means simply house, which gives us perhaps a better idea of the home in that land than any description. In speaking of the house we must again bear in mind the diversity of classes, and that Turkey is the land of contrasts, so that whatever incident one may write, some one may say truthfully "why I've seen the very opposite of that in Turkey". These exceptions which prove the rule make Turkey a land of surprises and a land of which one never tires, so in speaking of the home one finds occasionally the true home among the Turk, where love reigns supreme, and where the wife and mother holds her rightful queenly place, but that it is the exception, no one will question.

The house is either in city or village, for there is no such thing as the farm-house in Turkey. The nearest approach being temporary summer houses in suburban vineyards. The city or village is walled with high walls of sundried brick, the streets narrow, crooked, generally unpaved, or with rough cobblestones high walls on either side of every street, doors from the street open into small paved courts, from which courts one enters perhaps more houses. The house is two stories, flat roofed, with a stone roller to roll the roof after each rain, or in some sections semi-cylindrical tile is used for roofing. Walls are
built of stone, or of sundried brick, or of sundried and kiln-dried both. A light frame of timber roughly shaped with the adz, for the walls and partitions, while main floors are underlaid with substantial round timbers or partly squared. Sawing is done by hand, no machine, sash and door work is seen in the towns of the interior, consequently windows and doors fit poorly, are light and poorly made, glass put in without putty. Interior wall finish is a plaster of mud mixed with straw, sometimes whitewashed and in better homes plaster and wall paper may be found. Our Moslem friend seems very fond of the open reception hall, and even in humble homes you may find a large space given to the open reception hall, from which opens the "semlilik" or men's room, and the "haremlik" or women's room. These rooms are furnished with a low divan on three sides of the room, this is covered with mattress and rugs, one corner being more elaborate than the rest is the place of honor in the room. Oriental rugs adorn the walls and floor, as well as the divan. Wooden wardrobes are built into the room, wherein are kept piles of folded bed-quilts, pillows, etc., which at night are spread upon the floor for beds, in the morning folded and put away. The meal when ready is served on a low circular table, which is brought into the room, or taken from its place
on the wall. The table stands 8 inches from the floor, the guests sitting "Turk fashion*. Ordinarily all eat from the common dish, the men eating first are served by the women. After the meal the table is again taken away, and coffee is served, the women eating in another room while the men sit, smoke and talk. The kitchen is generally a small room, or it may be a corner of the living room. The "range" is a fireplace made of stone or brick, a small wood or charcoal fire does all the cooking. The utensils are hammered copper, pots, whitened inside. Almost all cooking being done without the use of an oven (bread being baked in public village ovens). Ventilation in the houses is poor, especially during the winter months, where in poorer houses the room is heated from a pit in the center of the room in which a brazier of coals is set, the occupants of the room sit or recline with feet toward the central pit, and covered with the blankets. The fumes from the coals blacken the rooms until they are nearly coal black, especially in homes where good charcoal is not always to be obtained, and dried manure is used extensively as fuel.

The whole family spend the winter months, huddled together in one room, without change of clothing or bathing for weeks at a time.
The changing of customs relating to the home are often more difficult than changing the policy of the nation, and the Moslem above all does so and so, because his forefathers did so, and he must needs do the same without inquiring whether there be a better way. The closed home, the damp dark building, places for filth and disease, are not easily remedied. Nor the common dish at the meal, the public drinking cup, the indiscriminate use of the mouthpiece for smoking, the unhygienic huddling together, the lack of cleanliness of clothes and person, the insanitary disposal of offal and sewage, the flies and vermin, all have such place in the order of living that the changing of the present order of things involves the whole domestic and social organization of Turkey. Reformation may be expected only in the course of time, or as seems likely as a result of the present war, it may be greatly hastened by foreign control.

The social life in the Turkish home is restricted by their customs, forbidding mingling of the sexes. The Oriental is outwardly dignified, composed in his intercourse with the world. He enjoys sitting by the hour at home or in his shop, smoking, drinking coffee, and conversing, while unceasingly bix fingers the
rosary or string of amber beads. He enjoys dignity, a seat of honor, homage and respect due to his rank, is careful to be addressed by his correct title, and seems to have as his ideal in a way of success, the position where he may command and others obey. He is philosophical rather than purely scientific, and one might say also theoretical and idealistic rather than practical.

Early marriage is the rule, polygamy allowed on condition the husband has sufficient wealth. Divorce is not as common as might be supposed, when we consider that the husband and wife do not see each other's faces until after the marriage ceremony in most instances. The position of the woman being in all respects so much interior to the man, makes her practically a slave in the home. She expects nothing more than to serve her mother-in-law and her husband, to be the drudge of the home, and the mother of children. The childless woman is an object of pity, without anything to live for, she is superceded by the second wife and relegated to an inferior position. The Turkish woman must not speak until spoken to, even in the seclusion of the home. The Turkish woman is illiterate as a rule, and looks with astonishment at the American woman able to read, write, and manage business.
transactions, etc., expressing incredulity as to the possibility of a woman being endowed with brain power for such tasks, they having been taught from infancy to regard themselves as the inferior sex. The dignity of labor rests upon the Turkish woman's head, the husband not deigning to lift a finger to carry a load, or to walk in case animal or carriage is available. In case a poor family possesses but one borrow, the man rides in state before, while the wife carrying a child and burden trudges behind. Such lot is accepted as the inevitable, is expected, and the Turkish woman is as well off as her neighbor, as she maintains a cheerful mein, enjoys a vivacious word-battle with her neighbor, accepts with stoicism the will of the Allah, when her young infant dies, and in her wildest dreams of fancy probably never considers the question of equal suffrage as having any possible relation to herself. Notable exceptions are now found since the constitutional form of government in the capital city, but the interior of the country remains as it has been for centuries past.

Occupation plays its role in the causation of disease, although the American factory system is not in evidence. In the cities tenement houses are insanitary, and without proper sanitary regulation. The city of Smyrna is filled with miserable tenement houses, which
the heat of the summer makes almost endurable. Many Orientals are merchants and traders. The cities of Turkey are characteristically oriental in their system of oriental bazaars, or covered markets. The bazaar consists of a whole section of the city, the streets roofed over with gates at each entrance, making of that district one large building as it were, with hundreds or thousands of pigeon-hole-like shops on either side of the covered streets. Very little sunshine filters through into these markets. The merchant sitting in semi-darkness, in the winter time huddled over a small brazier of coals, and in the summer often sweltering in stifling atmosphere. The wel-to-do moves with his family to the vineyards for the summer, the poor being compelled to work for a mere pittance, satisfied if he is able to keep the wolf from the door.

The rug merchant working in dark dusty store rooms which are filled with old rugs gathered from homes of filth and disease, often falls victim to the dreaded while plague. Coppersmiths, knifemakers, blacksmiths, are subject to nephritis from their periods of severe manual labor alternating with exposure to cold combined with the habit of this class of laborers to drink immense quantities of native wine. Shepherds, farmers, millers, teamsters and caravan drivers, are
subject to bronchitis, emphysema, empyema, nephritis, neuritis, rheumatism, typhoid fever, etc., in fact all the diseases of exposure and irregular life in all kinds of weather on the rough mountain roads of Turkey. Working barefooted for long periods of time in cold irrigation ditches is the cause of many cases of rheumatism, multiple neuritis, even gangrene, etc. Child-labor is employed in large weaving establishments, and in thousands of homes where the family income is augmented by the rug loom, mere girls working hours daily in dark ill ventilated rooms for a few cents a day.

**Food-stuffs, Habits of Eating, Drinking, etc.**

Water in Turkey is not abundant, small roadside springs being found in most regions at convenient intervals. Large rivers and lakes are few, artesian wells not in general use. Common wells are seen in all regions, many of great depth lined with stone work and capped with a great stone often worn into deep ridges from the friction of the ropes used in drawing water. Some wells are so made that they may be entered by a long descending tunnel, some of great depth are remarkable engineering feats, and have been made by Romans to secure water for the garrison of an enclosed fortress. The cistern for the rain-water is not used in most regions, because of the flat roofs or tile roofs which are extremely precious and do not shed water well.
In volcanic regions such as the Cesarea region, great cisterns are cut into the soft volcanic ash, these cisterns being lined with cement are filled from surface water which is run down from the mountain in ditches, covered or not, according to the locality, character of soil, and number of villages which the stream must pass through. Then great cisterns or reservoirs are of considerable extent and insure a supply of good cool water for the summer months. Mineral springs are found; some sulphur springs are much visited for their value in skin diseases. Snow is used generally in place of ice, no natural ice being obtainable in most regions and artificial ice plants not used. Snow is stored in great caves in the ground especially made for the purpose. The snow packed in when just at the melting point forms a solid mass almost like ice, and is cut out in blocks and sold during the summer months, and is freely eaten and used for cooling food and drinks, without regard to its purity.

Milk foods. Milk is invariably boiled before using, a custom from long usage rather than for any health reason. After boiling "yoghourt" is added which makes the lactic acid ferment similar to the Bulgarian sour milk. The cream is used partially dried, or butter is made. The cream and
butter not being especially acceptable to the
foreigner's palate on account of the "yoghourt"
taste. Milk is used in cooking, in soup, rice and
milk, ice cream, etc. Several good grades of cheese
are made in Turkey. Cheese is used very commonly,
but is too expensive for the poor.

Bread varies greatly in different cities and
villages. The loaf bread is made with leaven, kept
ever from one baking to the next. Several grades of
flour are used, from very coarse bran like flour to
the finest which is not as fine nor as white as
our American flour. The loaves are from about one
to five pounds in weight. In the Cesarea region, a
long flat bread is used about four feet long, an
inch thick, and 6 to 8 inches wide in center, tapering
to either end. One may see people carrying this
bread home from the bakeries like armloads of boards,
and one may see the bread spread out along the front
of the bake shops, gathering all the dirt and dust
of the street. In the villages a thin sheet bread is
made without leaven, and thin as wrapping paper;
in eating this sort, the piece of bread torn from the
larger piece is used as a scoop for a mouthful of food,
the food and bread being taken into the mouth together
no spon's being required. Bread is the great staff of
life in Turkey, with a bit of cheese, a handful of
olives, a raw cucumber, or melon, makes a meal
for the laboring man. The food is generally bolted,
the mouth crowded to full capacity, and swallowed
as soon as swallowing becomes a possibility.

Meats are used both fresh and fried. Mutton is
the universal meat used, and is of very superior
quality, from the big-tailed sheep. The animal is
butchered and the meat disposed of the same day,
insuring its freshness. Beef is used to a limited
extent; poultry, chickens, turkeys, ducks, and geese,
are much used and cheap, but often of poorly selected
stock. Dried beef in the form of "basdirma" was
spoken of above, and is simply the strips of beef
prepared with various spices and garlic, very
distasteful to the foreigner's nose and palate. The
Turkish homes reek with the smell of it, which seems
pleasant to their sense of smell. Fish is used when
obtainable, both fresh and salted, and fresh water
crayfish and of large size are used to some extent.

Fruits in Turkey are noted throughout the world.
Dates, figs, pomegranate, apples, pears, apricots,
plums, quinces, olives, abound, and delicious grapes
of many varieties. The grape is used both fresh and
dried, and from the juice many sweets are made - one
called "pek mez", being much used, resembles our molasses
somewhat, but the finer grades being stiff so that it
may be cut. Wine both red and white is made and used
abundantly by all races. A strong liquor "raki" about 40% alcohol is distilled from the grape, and is the whiskey of Turkey. Fruit gardening is carried on in quite scientific fashion; grafting generally used.

Vegetables are on a par with the fruits of Turkey, and are of splendid quantity and quality and cheap, so that the poorest may have in abundance during the season. All the common vegetables are used. The sweet potato being an exception in Asia Minor, as it does not seem to thrive. Green vegetables, onions, leeks, spinach are very much used and also cucumbers. Green corn is of poor quality, and not much used. The egg plant is used by every family and is also dried for winter in great quantities. Peas, beans and lentile are grown in quantity and used fresh and dried. The vegetable gardens are generally near the cities, the sewage water being used for irrigation, and serves no doubt as a source of typhoid. It is is the cause evidently of universal round worm infection. Man, woman, and child, are infested with round worms throughout Turkey, so that when the native doctor hesitates for a diagnosis, he says round worm trouble and his Santonim is sure to bring results.

Nuts are of good quality. English walnuts and filberts being specially abundant and good quality. They are exported in quantities from sea port towns.
Sweetmeats are used to serve callers, and used as confection, but not to the extent we see in America. The most noted Turkish sweetmeat being the "Rahat Locoum" or "Turkish delight". Bags of candy are given to friends on the occasion of an engagement. Many housewives are expert in making candied fruits, fondant, and such like sweets.

Condiments and spices are used in moderation. Spiced meats, pickles, are used in all well to do homes. Ripe olives are not used merely as a relish, but constitute one of the staple articles of food of all classes if people. The green olive one does not see except as imported goods.

Beverages. Turkish coffee, with or without sugar, never with milk, is universally used. Tea is used but is very poorly made, almost always boiled and of poor quality. It is drunk with sugar only, but with sugar enough to make almost a syrup. Wine, red and white, is used ad libitum; "raki" was spoken of above, and is the alcoholic curse of Turkey, used alike by Moslem and Christian and producing chronic alcoholism in many cases. Beer, and whiskey, cognac and champagne, are imported in large quantities, largely for coast city consumption. The Greek population being perhaps the greatest consumers of imported liquor.

Tobacco is used by men and women alike, and
invariably in form of cigarettes. The pipe and cigar is rarely seen except in coast cities. A form of tobacco "tembeki" is used in the "nargeli" or long pipe where the smoke is drawn through water. Snuff is used a great deal.

Immense quantities of tobacco are grown in Turkey; the export of this article is an immense item in Turkish exports. Drug habituées, "dope fiends" are occasionally seen - generally morphine or cannabis indica, Indian hemp, or as it is called in Turkey "hashoosh", are the drugs used. Turkey being the home of the finest opium of the world, one would expect to find opium smoking common, such however is not the case.

Domestic and Personal Hygiene. Turkey is notoriously lacking in these elements of good civilization, and it is one of the things which makes a strong plea for the introduction of Western civilization, medicine, and religion, as centuries of development under their own system have produced no results in clean morals, clean homes, or clean bodies. One must feel that a very essential element of Turkish civilization is lacking when it fails in these fundamental principles of health and happiness. The Turkish bath is justly celebrated, but when given as it is given in Turkey,
it is an ordeal of considerable severity, so that it is no wonder that patients have as one of their stock questions to the physician "may I go to the bath?". We see much harm as a result of the occasional use of their bath. It takes away every particle of the natural protecting oil of the skin and leaves the skin open and in prime condition to be chilled by any exposure to cold. Patients will often date the beginning of their illness to the last time they went to bath. As a general bath for ordinary use, to my mind, it is not at all ideal, and when the bather goes infrequently and according to their custom spend 2 to 3 hours or longer at the bath, it seems a menace to health, rather than otherwise. Another feature of the Turkish bath is the difficulty to keep it sanitary. It seems the inevitable result that scabies, and skin diseases, very possibly syphilis may be spread in this way. It is a place where neighborhood gossip runs rife, and where not infrequently argument ends in a fight. During the winter months many do not bathe at all, and in many towns of 5000 to 10000 inhabitants, no public bath is to be found.

The Moslem must perform his ablution five times daily, proceeding the saying of his prayer. This ablution consists of washing of face, hands, forearm, and feet; this ceremony is faithfully
followed by the devout Moslem. Many especially of the young Turk party are not religiously inclined.

Care of teeth and mouth. Dentistry in Turkish villages consists in extraction of aching and decayed teeth. In the large cities dentists of fair ability do crown and bridge work. The poor class neglect dentistry altogether with the result that their mouths are in horrible condition. Teeth in all stages of decay, more than half of them gone while the possessor is still in his thirties. Pyorrhoea alveolaris is so common as to excite little attention. The prevalence of gastric disturbance has no doubt relationship to the disease. The researches of Rosenau of Chicago, within the past few months, all contribute to the same conclusion as to the importance of these mouth infections, hidden foci, which are responsible for many internal infections of stomach, intestines, gall-bladder, appendix, and endocardium which have been of unknown origin. The use of the tooth brush is restricted to the educated classes, and a great deal more education will be necessary before the mass of common people will accept the fact that the expenditure of a few cents for the purpose of prophylaxis and cleanliness, unless there is a toothache of such severity that sleep and personal comfort is jeopardized.
Similarly we find lack of attention to throat, tonsils and adenoids, except in cases where they give definite discomfort. A great field is open in education the people to the value of prevention in just such cases. Noma or gangrenous stomatitis is frequently seen in babies and young children, is fatal in 90 to 95% of cases, and is an example of what lack of cleanliness leads to.

Eye diseases are among the most distressing conditions met with. Infants blind from opthalmia neonatorum, and from the effects of small-pox (see above), slight permanently impaired from trachoma pannus, from phytencular ulceration and scarring of the cornea, from neglected eye inflammations of various sorts, among which keratitis eczematosa is frequently seen. Lid deformities from trachoma, and from anthrax, purulent dacryocystitis, are all conditions easily preventable if seen before the destructive process has established itself.

Ear disease particularly purulent otitis media with impairment of hearing is a frequent sequel of infectious diseases of childhood. Mastoid disease is not infrequent complications. As may be imagined from infrequent bathing skin diseases are always in evidence. In the summer months the infants and children are almost invariably covered with dark
reddish marks from flea and bedbug bites. Eczema, scrofula, dermatitis of many forms, and scabies always. The scalp is very frequently the site of extensive favus and of ringworm, which covers the entire scalp and results in more or less permanent baldness. The poor are infested with head lice, which are a prolific source of lesions of the scalp, enlarged glands, etc., from infection following scratching. Girl children wear their hair in 20 to 40 tiny braids, which braids are fastened with a fan-like band attached to which are coins, evil-eye beads, etc. Hair done up in this fashion is naturally not combed and cleaned at frequent intervals, the scalp becomes actually alive with vermin. The hair under the braids often appearing gray from a distance from the thousand of nits attached to the hairs.

Barber shops are primitive in their appointments. The barber is often the village surgeon; blood letting minor operations of all sorts being attempted often enough with dire results. It is a common custom to shave the entire top of the head which in summer time is a partial preventive of vermin. The hair is usually worn short cropped. The Armenian and Greek priests allow both hair and beard to grow untrimmed. Among all classes and races the moustache and beard is the sign of manhood. Smooth-shaven faces are never
Foreigners in the country adopt the custom also as a means of being less conspicuous, and subject to constant comment, ridicule and criticism.

Public toilet accommodations in inns, or public comfort stations are a disgrace to civilization, not fit for swine, so absolutely filthy that whenever possible God's out of doors is used instead of the miserable accommodations afforded. The closet in the house is often placed near the front entrance, to the discomfort of all who enter or leave the house. The public laundry is not to be found in interior cities. Collars and cuffs are not much used, except by professional and official men, and students of foreign schools. Washing of clothing is done by boiling in great copper pots after which the clothes are beaten with a flat wooden paddle, using a flat stone as a table, or as in the Cesararea region women and girls use their feet instead of the wooden paddle, becoming quite expert and graceful in their vaudeville-like performance as they swing high their feet alternately. The clothes are then rinsed in a running stream, the main village water supply being often used in this way for washing, drinking, and for every purpose where water is needed. European influence has shown in dress perhaps as much as in any one particular. European suits are worn.
commonly by Armenian and Greek merchants and professional men. The Turkish men clinging to their own style of dress much more tenaciously. The red fez is universal, among Christians and Turks. The Circassian wear astrakhan fez, the Beriush a very high brown felt fez, the Avshar a fez of sheep-skin, etc. Trousers are bagged as far as the knees, and tight from knees down. Footwear is from sandals of sheepskin to smooth skintight kid. The overshoe is always worn and always left at the door as one enters, even the humblest observer the custom.

Probable Trend of Preventive Medicine in Turkey. Turkey has been passing through a period marked by political unrest, radical change in form of government, and increasing discontent of the masses. It is a period of increasing dissatisfaction with Turkish rule, and an increasing tendency to bend toward European influence. The present war has brought Turkish unrest to a crisis, she has been obliged to call to the help of German officer her military forces, and how the approach of the Allies to the gates of Constantinople makes it seem inevitable that Constantinople and in fact the Ottoman empire will pass under foreign control.

The crisis in Turkish history will mean radical changes in the sanitary control of the country, and
we have reason to feel that the country will not forever remain in this respect in its present deplorable insanitary condition.

Preventive medicine is ever in the vanguard of development, and with the building of railroads, the establishment of factories, the opening of mines, the modernizing of agriculture, we shall expect the science of preventive medicine to keep pace.

There is already evidenced a marked and increasing desire for foreign education. The American schools are being sought as never before by Moslem pupils. The American schools and hospitals have ever been educators in hygiene and sanitation, creating a normal appetite for modern civilization, education, and medical science.

The secret of Turkey's backwardness lies in the ignorance of her common people, and the secret of success lies in the making common knowledge the simple facts of healthful hygienic living, the simple facts of germ life, of asppiae, of infection, of the value of simple preventive measures. The education of the people to read and write, and the dissemination of simple medical literature in the language of the common people, will be the regeneration of Turkey in respect to health and happiness.

Turkey needs America's interest in the
establishment of modern research stations for the studying out of her great medical problems, and it is to America's credit that she is preparing for this very thing. We shall expect within the next decade to see the beginning at least of accomplishment, a more sanitary country, more hygienic homes, a decrease in infant mortality, an educated midwifery and trained nurses, a decrease in epidemic diseases, a successful fight against pandemic diseases, and more rational treatment of the sick, the insane, the blind, and altogether a more livable country.

Conclusions:

1. Turkey, geographically, commercially, in undeveloped resources - a rich and promising country.
2. Undeveloped and bankrupt because of government policy and keeping people untrained, ignorant and servile.
3. Insanitary and unhygienic conditions a natural consequence.
4. Terrible waste of human life a result of insanitary condition of the country.
5. Ravages of epidemic and pandemic disease, a disgrace to modern medicine, and a menace to western civilization, through emigration.
6. Present organizations not meeting the situation in medicine, surgery and sanitation.
7. A great opportunity for modern medicine to regenerate a country.

Dr. Monroe, Iowa
April 26, 1915

A. R. Hoover
A typical town of Turkey

Not unlike styles, clearly, fairly

primitive style. Architectural, flat, not

country and fields in foreground