

Medical record, Volume 65

edited by George Frederick Shrady, Thomas Lathrop Stedman

MEDICAL SERVICE IN THE MERCHANT MARINE.

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It has been well said that there is work enough for everybody on a ship, and the recent medical graduate or the landsman practitioner of riper years who turns to a sea life must quickly prove the truth of the statement. It is the purpose of this article to set down as clearly as possible the life of the medical man in the merchant and passenger steamship services, presenting its advantages and disadvantages. With pardonable pride in our national character, it may be stated that the American doctor has become known to the maritime world as being of the first rank. There are certain of the large steamship companies trading in all parts of the world whose home offices are abroad—addresses being given in detail further along in the article—who, with unfailing promptness, place American doctors applying for positions as surgeons aboard their ships. In the passenger service to and from American ports, the native born and educated physician again has the advantage in the race for place over the foreign medical man for the reason that the various steamship companies, whether of foreign or native ownership, are now coming to recognize the fact that the greatest number by far of travelers back and forth from America to Europe who use their ships are Americans. A large source of revenue to passenger steamship companies is derived from shipping emigrants, and our government is becoming more and more exacting as to the qualifications in determining who shall and who shall not be permitted to take up residence on our shores. The American doctor again is by nature better fitted to appreciate the proper construction of the laws upon this subject and likewise to secure every advantage for the company which employs him to look after the medical interests of these would-be citizens.

Inducements.—The attractions drawing a young medical graduate, or the older practitioner, to the sea may be manifold. Besides an innate love for the ocean, personal health may be an attracting force. Sea life is probably more generally healthful than any other existence. More particularly in its sedative effects is it valuable to one who has undergone the lengthened strain of four or seven years—as when academic and professional courses are combined—in college. The older practitioner, after years of uphill effort, securing only moderate success, as well as the one who works an unrelaxing round, may, too, be attracted seaward. Educationally, a method of broadening one's scope—so essential to the physician—by travel and study of the many phases of human nature which are thus continuously presented to the ship surgeon, is offered.

Application.—Having decided to seek the position of doctor upon a vessel with the object either of working his way about the world or to secure the coveted berth of surgeon on a liner, the proper method of procedure for the candidate would be to secure an introduction to the general agent of the company upon whose ship he desires to serve. While personal influence has weight, a well-written letter stating the qualifications of the aspirant and the announcement that the doctor will call around himself within a few days to present his case in person, will prove of equal value.

Persistence in the matter is a most important quality, and a weekly call upon the agent subsequently soon attracts that

official's attention and gives notice that the doctor is still alive and awaiting his opportunity to serve the company in an official capacity. While awaiting the chance to secure a regular appointment the candidate should visit the various ships in port of the class in which he intends to sail, and become acquainted with ship doctors, who will be found a most approachable set of men. By this means he is not only learning his way about a vessel, as it were, but will often chance to meet a doctor desiring a substitute. These changes are quickly arranged, and the candidate, to take advantage of such opportunities, must be prepared to embark upon shortest notice.

In the passenger service the American, Red Star, and Holland America lines employ American doctors almost exclusively upon their vessels. Other lines entering New York, particularly the German, are seriously considering the advisability of placing one or more American physicians upon their steamers. Freight steamers on call to a single port, or perhaps wending their way through many waters and visiting many countries before returning to the home port, which are known as "tramps," are sometimes more desirable as means of seeing the world. Probably the largest owners of steam vessels of this latter type are the "Elder Dempster S. S. Co.," sailing the Royal African Mail line of steamers, with general offices at No. 21 Water Street, Liverpool, England, and the "Elder Dempster S. S. Co.," Luisenhof, Hamburg, Germany, to whom applications may be sent.

Qualifications.—The personal qualifications of the individual who would be successful in his profession at sea are that, besides having a diploma from a reputable medical school of our country, he must be possessed of the manly quality of self-reliance, coupled with prudence in action. For he must remember that every doctor who enters a ship's company does so at a disadvantage. The popular idea afloat of the "ship doctor" is that being a failure ashore, he turns to the sea and would minister to jack-tar's ills. Government restriction in steamers of English registry running from England and between her colonies requires that the surgeon aboard must possess an English license if the combined number of crew and passengers is over one hundred persons. Dutch steamers have also government restrictions, but their enforcement is usually left to the steamship officials themselves.

Salary.—Payment for his services may be divided into two portions: first, the money received from the company as he stands listed upon the pay-roll, which includes his percentage from the sale of emigrant passage tickets. Second, the compensation derived from his patients, which may be truly termed the honorarium, as it may be in cash or a variety of articles. In the passenger service, the American, Red Star, and Holland America lines pay the highest cash salary, which is fifty dollars a month; from thirty to fifty dollars being the limits in regular passenger service. In addition to this, the doctor may count upon receiving from twentyfive to two hundred dollars extra from various patients upon a good trip—financially considered— during the "season," which lasts from about the end of May until July in the trips across from this side, and from the last of August up to October in the return passages. Besides money, the doctor is liable to receive anything which the recovered patient, returning home, believes might please the doctor. Or a monkey, a parrot, or a carved ship set sailing in a porter bottle by some old quartermaster, grateful but rheumatic, who does duty on the bridge, after having passed from a forty years* service before the mast of sailing vessels, may be received. In freight steamers the compensation is less; twenty to thirty-five dollars per month being the limits of cash payments by the companies. Of course, aboard this class of steamers passengers are few and far between, and extra money derived from outside sources is likewise scarce. Sometimes, however, the doctor may have a chance to secure extra fees by being called ashore to see a case in a port far removed from civilization; as in the case of wealthy native planters along the West coast of Africa, who pay for treatment in ivory, . skins, or nugget gold, which may readily be converted into cash upon reaching home. Work upon the African trading steamers is hard but pleasant. The doctor is the captain's "chum"

and is given greater opportunities to gain a knowledge of the language, life, and character of the natives than can be afforded in any other vessels. A few companies allow a wine credit of a certain amount per month for the use of the doctor when entertaining friends or passengers. The doctor's room and office is usually combined, but is of ample size in most instances. The living is the best obtainable in the large ships styled "ladies of the ocean," and in all there is a plentiful supply.

Disbursements.—The necessary expenditures at sea include the personal laundry account, although some companies allow the doctor's washing to be done at their shore laundry. The doctor is usually expected to pay for his table and bedroom steward service. As the one may be a grateful patient and the other be satisfied by a gift from time to time of the doctor's cast-off uniforms, the money expense need not be large. Extra wine and cigars are charged to the doctor's monthly account, which is kept at the company's general offices.

Outfit.—The doctor's personal outfit should include a dress uniform and a working uniform with caps, with two or three sets of white duck uniforms for summer wear if the line of travel carries the steamer into torrid climates; a uniform overcoat; three sets of heavy underwear; six sets of light underwear; a dozen pairs of socks, heavy and light; two dozen collars; half a dozen shirts; a dozen handkerchiefs; cravats; three pairs of shoes; rubber overshoes; a pair of gum boots; storm coat (oilskin suit and sou'wester); toilet and shaving set; sewing bag (containing needles, scissors, buttons, thread). For professional work the doctor will require, besides a pocket surgical instrument case, the following instruments: hasmostatic forceps (4); scissors (curved); dissecting forceps; splinter forceps; grooved director (eyed); probe; spoon curette; scalpel; curved (sharp-pointed) bistoury; hernia knife; soft rubber catheter (No. 10 French scale); needles (curved and straight); catgut and silk (sterile packages). He will need a good practical work on medicine to which he may turn in emergency and secure a rapid recollection of his knowledge of the diagnosis, pathology, treatment, and prognosis of the disease he has encountered; also a similarly adapted work upon surgery, for when he is most in need of the knowledge he requires he will have least time at his disposal to spend in reading up a chapter upon the subject. Books upon the specialties may be added to his working library for secondary reading, but the chief reliance will be found to be placed upon the emergency textbooks of the character which has been described.

Rank.—The official standing of the ship surgeon which is accorded by the company's standard is that of second in command to the captain, and of equal rank with the first officer. The standing which he obtains in verity is that which he makes for him

self after coming on board. While the crew and officers generally will receive him with but ill-concealed feelings of disfavor, he may ere long make them all his friends and devoted admirers, if when starting out, and ever afterward, he conducts himself with the grace and dignity which our calling demands in dealing with laymen. While in ordinary times the doctor aboard ship is expected to attend strictly to his own business, in times of crisis his judgment in many matters outside of his regular calling will be tested, and well will it be if he is able to stand the trials, as after a collision, or in time of fire.

Social Life.—As in society in general, social circles on steamships are made up of rather well-defined cliques. The captain is supreme in the little circle drawn from the passengers which he gathers about him. It has been said that the social atmosphere of a ship depends entirely upon the temperament of the captain, and this is true to the extent that his character affects those of his officers and crew directly and through them cannot but react to a degree upon the passengers.

The chief engineer and the first navigating officer form a set by themselves. The other officers make up still a third, while the doctor either "cliques by himself," or may gain an equal footing in all the rest. While the purser is the recognized police official of a steamship, it is to the doctor

everyone goes in time of difficulty, whether arising amongst crew, passengers, or officers. Ship doctors may be called upon at times to decide with the captain the advisability, and to share in the responsibility of placing a passenger, one of the crew, or an officer in confinement for misbehavior. Subsequent suits for damages are generally likely to follow such proceedings, and careful decision is required in these matters. The captain himself may, at times, be required to be subdued, as in a sudden attack of mania. The doctor in such cases must shoulder the entire responsibility for this restraining action. A carefully written statement corroborated by that of the crew, officers, and passengers would be required in such an event to protect the surgeon at the subsequent investigation by the company and the government.

Professional Relationship with the Crew.—The

crew of a vessel are aboard of her for the object of working, and while the company provides medical attendance for those who are rendered incapable by accident or otherwise when pursuing the legitimate round of their duties, it expects the doctor not only to protect the interests of the crew against themselves, but to secure the best welfare and conduct of the ship by preventing individuals from taking advantage of this provision. The detection and prevention of malingering aboard ship is one of the surgeon's important duties. Alcoholic and venereal excesses are a common cause for disability amongst the men, and while the ordinary sailor has a childlike character in many respects, the doctor must not show too great a weakness in condoning these offenses, which clearly destroy a man's power to work two or three days out from every trip. Such a man, for a time, may be able to make up his deficiencies to the company for his days of idleness, but soon he is being employed at a loss, and it becomes the doctor's duty in the matter to make this fact known to his superiors. A doctor allowing himself to become too sympathetic may easily cause disorganization of the entire crew upon his vessel.

Passengers.—In his dealings with the passengers the doctor naturally stands as the mediator between them and the company as represented by the ship's crew and officers. Avoiding discussions in all matters, fair judgment is required from him. While, after a few days out, the doctor may share the part with the captain of becoming a social lion, he must carefully avoid the appearance of becoming too popular. While he is the host for the nonce, he is still but the servant; his quickly-made friends will soon become forgetful of him, and if he would avoid discord he must prevent jealousy from arising in the breasts of his fellow-officers. A doctor who becomes a little abrupt during the extra bustle of changeable weather need not be surprised to find that the officials in the general office of the company have been notified by various tourists of his slights to the passengers. Ever mindful of the delicate position which he occupies, he will be required to exercise constantly all of his resources to cope with the arising situations. The surgeon may often serve his company and win their commendation by his power to prevent damage suits arising from accidents to passengers aboard his ship. With the exercise of a little tact a statement, which he may have in printed form, expressing satisfaction of the injured one or his friends with the treatment received will, after it has been signed, act as a deterrent when thoughts of securing legal redress arise in the minds of the patient or his family.

Steerage Passengers.—As the captain, chief officers, and doctor all receive a percentage of the ticket receipts for carrying emigrants, the interests of these people are generally well protected. From time to time, however, a magazine writer of more or less repute will travel "steerage" and upon his return, set himself the task of recounting his experiences, finding little to praise and much to blame in the manner of handling the immigrants. As a matter of fact, emigrants to-day travel to our country in far greater safety and in much more comfortable quarters than did the country's forefathers. Disputes must be adjusted and all disorder carefully repressed amongst the immigrants, for, in time of panic, their actions are the chief disturbing element aboard the ship. Sanitary measures must be instituted and carried out for the general good of the ship, and it is the doctor who is the chief organizer and executive officer in charge of these matters. His duties require that he make a careful examination of every emigrant passenger before he boards the ship for the purpose of detecting the unfit. The importance of this may be imagined, for if a single

individual suffering from an incipient epidemic disease, such as scarlet fever, smallpox, measles, or yellow fever, were allowed to embark, the subsequent epidemic arising when at sea would cost the company many thousands of dollars' loss in quarantine expenses and fines, aside from the number of lives which might be sacrificed. Eye diseases are likewise of importance, as quarantine officers in the American ports are particularly charged to reject immigrants presenting chronic eye diseases, especially when of a trachomatous nature. As precautionary measures, candles and garlic are confiscated from the immigrants whenever found. A law of our government requires that all third-class passengers be vaccinated. This duty devolving upon the doctor, he finds it to his advantage to perform the work early in the voyage, else its performance becomes an almost utter impossibility, owing to seasickness if the weather becomes at all rough. It is therefore not uncommon for a ship doctor upon one of the large transatlantic liners to vaccinate from seven hundred to one thousand five hundred steerage passengers during the first day out from the foreign port. The implement by which this is accomplished consists commonly of a handle fitted with an attachment similar to the lead-holding

device in the ordinary indelible pencil. By this means sharp, pen-like stylets are held in position while being used upon the patient's arm. Several stewards are engaged in loading the handles. The point after being dipped in the virus, provided in a receptacle at the surgeon's side, and applied, is discarded. Infection from one person to another is thus avoided. Daily inspection of the scars is a part of the ordinance, but this is impossible owing to the press of other work. Stewards are therefore required to check off the necessary inspections at the final sea inspection of the surgeon, which takes place a day or so before sighting land. But little trouble is experienced in carrying out the government health regulations save with that class of returning immigrants who, having spent some time in America declaring for citizenship, are returning after a visit to the fatherland. These persons, who are known as "one paper men," often resist and stand upon their rights as citizens to claim exemption. Notice to them, however, that they will be denied a landing if they do not submit to the laws of the country of their adoption quickly brings acquiescence. In general, these people have to be treated in strictest discipline. Knowing no law but that of the military force of their country, emigrants are quick to take advantage of apparent weakness upon the part of the doctor in the pursuit of his duties among them.

All classes of passengers will seek information as to the daily health report of the ship during a voyage. The uniform reply to such questions, whether from a steerage or first-class passenger of "All well aboard," will turn the questioner aside and quell the fears of the timid. Some steamship companies, when a death occurs from ordinary causes among the steerage passengers and which has been followed by burial at sea, tacitly expect the doctor to protect the corporation's interest by either making out a lax report or by omitting to mention the occurrence altogether in the papers to the quarantine officials. This saves time and money sometimes, but is perilous, for if the offense be detected, the company is not only heavily fined, but the doctor's character becomes henceforth suspicious.

Accounts.—The clerical work which the company and government regulations require from the doctor is such as relates naturally to his professional duties. His name must be attached to all official papers relating to the health of crew or passengers. His signature attached places him upon his honor as to the truth of the contents of such indentures.

Rejections of immigrant passengers at the port of embarkation with a statement of the cause must be officially noted by him. Sickness or death occurring amongst either crew or passengers must be also entered, accompanied by the doctor's descriptive statement.

Hospital Facilities.—The space accorded to the doctor in the treatment of the bedridden is limited to the patient's own berth in some steamers. Others have a special cabin or sick bay, far removed from the living quarters, where the sick may be isolated. Cabin passengers in time of epidemic are quarantined within their own staterooms. Steerage passengers, from whom most is to be feared, on such occasions are segregated so far as is possible in the necessarily limited

space at command. Help from passing steamers may be secured in time of need according to the universal law of nations, whereby a transfer of patients may be effected or additional medical aid be obtained.

Supplies.—Modern steamers will be found equipped in most instances with an adequate supply of drugs, splints, dressings, and instruments suitable for emergency or routine use. Many companies give the doctor free scope in his ordering, and are willing to purchase the best in the market. Besides the usual salves, ointments, and plasters, many of the most important drugs of the pharmacopoeia, put up in tablet or compact form, are provided. Instruments include a set of sounds, tourniquet, general operating, anaesthetizing, obstetric forceps. The best medical journals published in our country are either subscribed for or sent gratuitously by the publishers to all of the ships upon the important lines.

Work.—An idea of the amount of work which may be crowded into the ship doctor's day of twentyfour hours may be obtained from the statement of a doctor aboard one of the crowded home-coming liners in the late summer of last year. This gentleman kept a partial account of one day's work during rough weather. He made a total of two hundred and eighteen visits to cabin passengers' staterooms in visiting patients, each one of which had to be seen to and treated with the same careful handling that the shore doctor employs. Office visits were not included in this computation. Besides the daily and nightly round of burns, scalds, and "cramp cases" occurring in the fire-room gangs, there are usually one or more individuals in the great company which a ship's crew musters who will require the doctor's continual attention. The populous steerage with its numerous progeny of children and mothers will demand a good share of the doctor's time, besides childbirth cases, averaging one or two in number every voyage during the season.

Seasickness, brought on most often by the overindulgence in eating and drinking of the last days before sailing, with its usual concomitant condition of constipated bowels, takes up an additional share of the surgeon's hours and calls for a goodly supply of patience, castor-oil, epsom salts, calomel, and compound cathartic pills in the treatment, the general specific ordered being "champagne for the first passengers, and beer for the steerage." Local treatment which, though, homely, yet finds the greatest favor in the ship doctor's eyes is the application of the so-called "sea-belt," which consists of a beer bottle wrapped up in a towel and bound in position tightly over the region of the stomach.

Besides his rounds of day and night "calls" the doctor attends, with the captain and chief officers, the daily inspection of the ship when at sea. Landing of the immigrants must be overseered by the surgeon, and their transfer to the government landing station, and subsequent inspection and distribution are all a part of his regular duty.

Moral Aspect.—Looseness of morals is proverbial among the seafaring, and it would not be a fair exposition to the young medical man desirous of taking up the career of the ship surgeon not to make some mention of the moral temptations to which his calling will naturally expose him. To understand the situation one must recall the factors at work. A great and various body of people are thrown in close proximity. Many of the travelling class are true "idlers," to whom the temptations for free and overeating and drinking with little or no exercise are manifest. The female population of a large steamer commonly contains one or more individuals whose morals will weaken under the strain and propinquity. As the doctor has the most intimate relations with the passengers, he of all the officers is most likely to be tempted. A man of weak character readily succumbs, is continually allured by the fascinations, and while perhaps never awakening to the fact becomes

one of the class of doctors which the sailonnan describes as "being all alike."

Summary.—*Advantages.*—By securing a position of surgeon aboard a steamship the young doctor will gain valuable experience in the study of human nature. He will be enabled to visit foreign countries and the different races of men. A week in each port, which is the usual stay of the great liners, will, however, prevent the surgeon from making extended trips from these ships.

Probably six months or one year will suffice to enable the young medical graduate to gain a knowledge of sea-life as the doctor sees it. To the physician in search of health, if he be not too great an invalid, which would certainly handicap him for the activity of ship life, a valuable and inexpensive way is opened to enable one to secure a change of scene.

While the chance for social advancement may be easily overrated, the ship doctor is thrown in close contact and most pleasing intimacy with the most cultivated and highest types of our people, and the impressions which he makes will depend in great measure upon his demeanor and character.

Disadvantages.—The doctor aboard ship is considered an "idler," for while he may be oftentimes continuously engaged for hours or days he has periods of inactivity. The irregular life which is sometimes demanded is detrimental. There is a constant danger of contracting habits of intemperance in eating and drinking with a tendency to avoid active exercise beyond that required by professional duties.

Unless upon his guard, the doctor will become weakened in moral stamina by the life at sea, and lose ambition to advance to the heights in his profession.