TABLE 2.—*Rohrer's Index of the Body Build*
(Based on Arbitrarily Smoothed Curves)

Age	Boys	Girls
6	1390-1410	1380-1400
7	1360-1380	1350-1370
8	1330-1350	1320-1340
9	1310-1330	1290-1310
10	1280-1300	1270-1290
11	1260-1280	1250-1270
12	1240-1260	1250-1270
13	1230-1250	1270-1290
14	1230-1250	1290-1310
15	1240-1260	1300-1320
16	1260-1280	1310-1330
17	1280-1300	1320-1340
18	1300-1320	1330-1350
19	1310-1330	1340-1360
20	1310-1330	1340-1360

rate they had up to that age, while girls make the level of about 46 kilograms at fifteen, again a year earlier than boys, and the rate of growth is very slow after that. In the Rohrer's index, girls are lower than boys to the age of eleven, where they reach the lowest point; then they go up, keeping thereafter a decidedly higher level than boys. Boys reach the lowest point two to three years later than girls, and then go up, the lowest point being a little below that of girls.

In sitting height and leg length, boys make a gradual increase at a fairly uniform rate to fifteen years. Girls increase in leg length to twelve years and in sitting height to fourteen years, after which the rate of increase is markedly reduced. The increase in leg length is greater than that of sitting height, so that the curves cross at about the tenth year (if the curves of sitting height and leg length are compared); after which the leg length is always larger than the sitting height in boys. In girls, after the fourteenth year, the leg length becomes much smaller than the sitting height. The chest circumference in boys increases at a fairly uniform rate to the twelfth year, after which the rate is slightly increased for three or four years. The girls' curve is slightly below the boys' curve to the twelfth year, when it reaches the boys' level, and then the rate of increase is less until the fifteenth year. There is little change after that.

In the relative sitting height curves, boys and girls go down together until the twelfth year; then girls go up gradually, while boys continue to go down till they reach the fifteenth year, when they take an upturn. In the relative leg length, the boys and girls go up together to the twelfth year, then both go down, but the girls' curve goes down at a sharper angle. In the relative chest circumference, boys and girls alike take a downward curve to the eleventh year, then they go up, but girls are generally lower by 2 to 3 per cent at all ages.

THE STANDARDS FOR AMERICAN-BORN JAPANESE

The actual curves of the height, weight and Rohrer's index are more or less irregular, owing to the small number of children, especially in the two age extremes. It was thought desirable that these irregularities should be smoothed out, without altering the general direction and contour of curves. Tables 1 and 2 represent the figures of these new curves.

It is seen that girls surpass boys in height at the age of twelve, and in weight at the ages twelve and thirteen, respectively. Boys are at the peak of annual growth rate at the age of fourteen, both in height and weight, while in girls this occurs at the age of twelve. The annual growth rate gains slowly until the peak is reached in all cases, and then the decrease is rather rapid.

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A SHIP SURGEON'S LOG*

By R. W. HOOKER, M.D.†
New York

"ALL visitors ashore, please!" The bugle sounds. Officers in trim uniforms take their stations. Stewards hustle belated hand baggage. A veritable bedlam of voices, kisses and tearful farewells, and sinuously the crowds file out and down the gangway waving back at the passengers that now line the rail.

THE SHIP IS ON ITS WAY

Meanwhile, from a retired position, the ship's surgeon is quietly but keenly sizing up the passengers with almost uncanny accuracy which mere observation, born of long experience, has taught him to do. It is the lull before the storm that breaks over the ship's Medical Department. Suddenly, "You are wanted in the hospital, sir!" "What," he muses, "we are not out of the narrows yet!" But hurries down to the hospital, just as they come lugging in a big brawny fellow from the engine rooms. A shoulder joint dislocation, and so rigid that we have to give ether to reduce it. Right here let me observe that of all the thousands of passengers who ask me innumerable questions, not one ever seems to think of the crew as a part of the ship surgeon's job. "Oh!" they say, "I never thought of that." One wonders what they do with their thinkers. We are carrying a crew of four hundred with a capacity of eight hundred passengers and only one doctor, one nurse and one hospital attendant. Yet somebody will be sure to ask him the first day, as he hurries forward to the fo'c'sle dispensary to attend a dozen men, "Why, is anybody sick, doctor?" Too busy to answer, he only nods, smiles politely and hurries on with the usual rejoinder fading on his ears, "I don't see anybody seasick around here." On smooth seas, about one passenger out of one hundred gets seasick. The big Leviathan used to carry about nine hundred crew with a capacity of sev-

* From the Medical Department of the Panama-Pacific Steamship Line, S. S. *Virginia*.

† Editor's Note.—During our return trip from the recent American Medical Association session at Atlantic City, we met Surgeon R. W. Hooker, and persuaded him to submit this interesting narrative to CALIFORNIA AND WESTERN MEDICINE. Out here on the West Coast, where the Pacific Ocean laps the shores of California, these medical stories of the sea should have a lure for many readers.

eral thousand passengers, two doctors, one nurse and two hospital attendants. The same things happen to people on board ship as on land—anything.

THE SHIP SURGEON'S MISCELLANEOUS DUTIES

It is a part of the doctor's duty, when he has finished his professional work for the day, to help entertain in the social hall, to introduce people and see that they have a good time, and sometimes conduct the divine services on Sunday. It not infrequently happens that certain people are committed to his care and special attention—old people, invalids, young people traveling alone, and children. We are always glad to have happy children aboard. In their rollicking games they make us happy.

RECITAL OF SOME EXPERIENCES

Some of our experiences are very amusing. As I write, there is on board an old gentleman. He has come all the way from the Hinterland with his long shiny black coat and funny little hat. Yesterday he appeared at the door of the hospital, and by signs gave me to understand that he wanted some medicine for his stomach. I reached for the "Sailors' Standard," and poured him out a good sized swig of something that looks like wine, but has a different effect. Something like the concoction of black walnut juice our mothers used to give us. He took a sip and made a wry face and spat, and went off shaking his head. An hour later he came back and handed me an empty vial, and smiled as if to say he had reconsidered. I gathered that he had figured what a chump he was for turning down something intended for his good. I then poured his vial half full of cascara sagrada before filling with the other liquid, and had an interpreter explain that it contained six doses instead of one. He went off chuckling to himself over the bargain he had made in the deal. Every time I see him now he smiles in friendly fashion.

* * *

We were running out of Balboa in rather heavy seas and it was past midnight. My hospital attendant came to awaken me, saying that a tourist passenger had tumbled down the companion way, and was bruised and bleeding from a scalp wound. I dressed hurriedly and went to the operating room. Behold! It was Etara, the man "Friday" to William A. Robinson, who had recently sailed around the world as "King" of a small yacht with only this South Sea Islander as a helper. Poor Friday had been lingering too long in some night rendezvous for sailors in Panama City. "Big ships, bah!" said he, and spat in the waste receptacle. "I hav' sail roun' worl' wit'out scratch, and now I fall down ladder big ship and go cuckoo," he continued with a show of disgust, as we stanched the blood and applied the dressing. A little wizened sailor, he was, typical of the cooks and deckhands of the thousands of small craft that go toiling over the rough and tumble of the seven seas, and into every nook and bight of isle and mainland. Superstitious to the limit, and never satisfied for long on land save for a bit o' grog, then back again to battle with the elements. As we try to fathom their intent and wanderings, we are reminded of the saying of Solomon: "There are three things which are too wonderful for me, yea, four things I know not: the way of an eagle in the air; the way of a serpent on a rock; the way of a ship in the midst of the sea; and the way of a man with a maid."

* * *

One night I stood leaning on the rail of the boat deck watching the flash, flash of the signal lights of a tramp steamer talking to us in passing. The conversation finished, our operator said, "Well, I must be on my way now; excuse my dust, please." Quickly the little dickens flashed back, "Oh yeah?" and went trudging on its lonely way, presently lost to sight over the horizon. All honor to these brave little tramps sailing fearlessly over the wild and stormy deep, bearing commerce to many lands.

It is to this class of ships who carry no doctors that we are called by S. O. S. to render treatment almost daily. I shall never forget one terribly stormy night, on my first voyage, off the West Indies where those frightful hurricanes make up, I was awakened and summoned to the radio room. "We are sorry to trouble you, Doctor, but there is a distress signal off our port bow about two hundred miles." It was a small Italian vessel whose master was trying to convey to me in a mixture of Italian and broken English the symptoms of his chief mate who was desperately ill. From my knowledge of Spanish I figured out and radioed to him what to do. I then sat down to listen for awhile, for I, too, had learned the code. The static was terrible that stormy night, but soon the answer came sputtering in, and this was what he said. "Dee seek he ees better, receev' our tanks. Gud bye, sir, God speed you on your way." An example of the old time courtesy of the sea. Months afterwards I saw that old tramp lying in port, in Brazil, and went aboard her to shake hands with the grizzled old Captain and his faithful mate whom I had treated by radio.

* * *

I must not forget to mention that we picked up the three castaways who were stranded so long on Cocos Island off the Costa Rican coast and brought them into New York. Cocos Island lies about six hundred miles to the southwest of Costa Rica. It is the legendary depository for the hidden treasures left by the old buccaneers of the romantic days of the Spanish Main. Since those far off days it has been the quest of many a voyage in the hope that they might find the fabulous wealth supposed to be buried there. Very few ever come back to tell the story of their strange wanderings and intense suffering while under the spell of that lonely island. Off the beaten paths of ocean travel, one stands a poor show of ever being found when stranded there. It was mere chance that sent a portion of our naval fleet in its maneuvers off Balboa roads within reach of the island on this recent occasion, when they picked up these three poor fellows who had lost their small boat with all supplies

and left them naked and starving for more than six months, save for cocoanuts and whatever insect life they might find upon the sands. They were all emaciated and bedraggled, and well nigh starved to death, and it fell to my lot to nurse them back to health and strength. Their story was told graphically in a recent magazine. I mention them to show some of the interesting things we are called upon to do.

Those were tense moments that afternoon on the steamship *President X,* as the passengers stood around in groups and at the taffrail of the after deck talking in undertones, and watching for the first sign of news from the operating room. An anxious mother was traveling with two little boys, while the father was on the other side of the ocean.

She had appeared at the doctor's consulting room with the older at the five o'clock clinic, his face all drawn with pain and his little body bent almost double. No sooner than the doctor had looked at him he recognized signs of appendicitis, and upon a closer examination he believed it to be gangrenous. It was not easy to advise a mother traveling under those circumstances of the seriousness of the situation, and only one who has gone through such an experience can understand her feelings and responsibility. But no time must be lost; it was a matter of life or death, as the appendix would have ruptured in a few hours.

So when her consent was given in tears, the Captain was advised to stand by to slow down or stop the ship when all was in readiness for the operation. Within less than an hour the big engines ceased to throb and the ship lay motionless upon a quiet sea. The operation was hurriedly done, removing a perfectly gangrenous appendix six inches long from a child of eight.

When I saw him in the New York hospital on the morning of our return sailing, the little fellow lay smiling from his pillow, and looking up at me, he said, "Oh yes, you are my doctor from the ship." That was recompense enough for me, for truly as the father had said to me on arrival: "Doctor, there are some things which cannot be valued in money," and then he choked up.

"What do you say, Pop?" Pop only grins and takes a long pull on his pipe, for he has had a good breakfast, and sat down to smoke in peace and contentment. Pop was a mental deportee, one of the many we are called upon to take over on our voyage east bound. Let me say for them that not many among them ever give us any trouble. We keep them in our hospital under lock, sometimes a half dozen, until we get well out to sea. They seem to get very docile, and come to like the doctor and attendants. Then we open the doors and give them more liberty. We can see them peering out of the wards like monkeys in the Zoölogical Gardens in Buenos Aires, or the Hagenbeck grounds in Hamburg, and chuckling over our treatments for other patients. Then we let them out on deck under guard. We become very much attached to them. When they leave us for their homes in the interior of Europe we wonder if the people will be kind to them as we have tried to be.

Poor old Pop became very ill one night, and when I got to him he was unconscious and frothing at the mouth. It was a case of retention and it took us a long time to relieve him. In fact, he was very weak when he left us in Hamburg going to far away Ukrania. He looked so old and sick as he hobbled away, and we turned our backs to hide our tears.

Romance! That's what a girl likes. I shall never forget the look of appeal on Mary's face that morning when I passed her on the promenade deck. Mary was not her name, but we will call her that. What a beautiful girl she was, so young and unacquainted with the ways of the world. She was traveling alone, all the way to Rio de Janeiro to marry the man she loved. "John" was a civil engineer engaged in the building of some big dam. She had been terribly seasick for several days, and had been constantly under my watch, but on that particular morning she seemed frightened out of her wits and was crouching there in her deck chair and looked for all the world like some beautiful fawn, her eyes big with fear and tender appeal. Instinctively I answered her signal of distress, and sat down by her while she poured out her story with tears in her voice. Two brazen world travelers—they are on every ship—had taken complete possession of her and ordered a table for three in the dining room. She begged to sit at my table, and it so happened I had a vacant seat. So I introduced her to the lovely table companions who had been assigned to me, and we had a very delightful voyage all the way. On arrival in Rio I was busy for a while with the port officers, but on coming out into the lobby I spied Mary clinging to her John, and looking radiant with happiness. "Mary, is this John?" said I. "Oh yes," she said, fidgeting around him, while John was looking down at the floor all teased but proud as Lucifer. "But I don't know what to say," she burst out. "Don't say anything," I said, "just kiss him." Then I made it convenient to look the other way. Nobody was paying any attention anyway, all in a hub-bub saying howdy-do? and good-bye! to their own people. "Good-bye, Mary, good-bye, John." "Good-bye, Doctor," they answered back as they went down the gangway, hand in hand. Out into the streets of that beautiful city. Out into its glorious parks and gardens, a veritable paradise on earth. Out into the sunshine of life, just as all others have gone down through the ages since the Garden of Eden, to enjoy their honeymoon! I stood looking on....

On one of my runs to South America, it fell to my lot to treat a case of myeloid leukemia, a disease so rare that many doctors never have one in a lifetime's practice. It was the only case I ever saw. The patient was at the head of a foreign legation which propriety forbids mentioning. Been

in Washington seventeen years, and they were trying to get him home to die. Just my luck to take him on my run. Our competing company had refused to take him, as it was required that he be delivered dead or alive. The day before sailing our manager called me and asked if I would undertake it, and, being of an adventurous nature, I said, yes. Now, what was I to do? I didn't know how to embalm, so I rushed up to one of the elite mortuaries on Riverside and the head embalmer told me he could teach me in a short while so I could get by at least. So I went to school, one night! I worked frantically all night and all the next day, and came out with six bodies to my credit; and could take care of my own end results!

Just as I reported for duty the next afternoon they brought my patient on board and placed him in the most luxurious suite we had. He had been brought from Washington on a special train. When I stepped into his cabin in uniform and stood at attention, he asked his wife, "A quien tenemos aquí?" (Whom have we here?) Quick as a flash I answered, "El médico del vapor, señor, servidor de usted." (The ship's surgeon, sir, at your orders.) That's the way you have to say it in Spanish. Seventeen long days by fast steamer to his home and the company did not expect him to live five days. Surely I will be pardoned if I say that I lost no time. I played my trump without waiting. Our manager had said that if there was anything I needed, to spare no expense; he would put it on board for me. I had, therefore, provided myself with two of the very best tonics, both well known to the medical profession; not in the hope of saving his life, but simply to prolong it, if possible, to his home port. After a few doses I heard him say to his wife, "I feel better, something is getting a grip on me."

Then the fight was on in earnest. The nurse and I took turns just as the officers on watch. Stimulants, tonics, ice-packs, everything we could think of to give comfort and stay the ravages against the fighting army of white blood corpuscles. Already 150,000 (the normal count is from 8,000 to 12,000), the count steadily arose to 1,000,000. He was literally burning up alive!

This was the most thrilling experience I ever had in a fight with that grim monster to whom we must all inevitably yield. There were on board bankers, statesmen and presidents of big business. The eyes of the medical profession of the capitals of two great nations were on one poor little ship doctor to see what he would do. A daily bulletin must be broadcast. At Rio de Janeiro the ambassadors of three nations came aboard to pay their respects. The substituting ambassador passed us on the high seas and saluted. Need I describe my feelings?

We were steaming out of Santos, Brazil, when he died, fifteen days out and only three days from home! I choked down my feelings and set myself to the grim task of embalming. It took me four hours to do the job to my satisfaction, for I had taken him the Tutankamen way, and his people seemed pleased with the way he looked. Our officers came down off the bridge and acted as pall-bearers, and we let him lie in state in our lounge, the casket draped in his national colors. On arrival he was received in military pomp, the President, himself, attending.

AFTERTHOUGHTS

"Doctor, do you like to work on a ship?"

"Yes, why not?"

"Doesn't it get awfully monotonous?"

"No, we are constantly going. In the course of time we get to all the ports of the world. Then the personnel changes with every voyage. Sooner or later we meet the leading celebrities of all lands. I have enjoyed this close personal touch in a very pleasant way with so many nice people whom I never would have known otherwise."

It is our privilege to treat all kinds of people, from the humblest immigrant to the world's most famous characters, Hollywood celebrities, New York's high-powered business men, senators, ambassadors, premiers and world conference delegates are among our patients. In fact, it so happened recently that the Secretary of State of the United States with his entire committee and secretaries honored us by traveling on our ship en route to the London Economic Conference. He graciously stood with the doctor for a photograph, which is prized as an invaluable possession.

As to monotony, what is more monotonous than a doctor's life on shore? From bedside to office, office to hospital, day and night in a ceaseless round, year in and year out, with very little time for vacation. It is like being chained to one's oars forever.

And then, if I can do any good to this worldwide clientele, thousands of ships that carry no doctors but reach us by radio, multitudes of passengers of all kinds and nationalities, our own crews of sturdy fellows who happen to all sorts of accidents—if I can do any good, I say, with kind sympathetic treatment, with a happy smile and a cheerful word, as I go on my way, I shall not have lived in vain.

Steamship *Virginia*, Panama-Pacific S. S. Line.

TREATMENT OF LACERATED SOFT PARTS

By Edmund Butler, M.D.
San Francisco

Discussion *by Clinton D. Collins, M.D., Fresno; Lane Falk, M.D., Eureka; Dudley V. Saeltzer, Jr., M.D., Sacramento.*

THE character and extent of the debridement in lacerated wounds is influenced by the following factors:

1. History of the accident. Special emphasis on the injuring forces, the location of the accident and probable contamination of the injuring instrument.

2. Careful examination of the clothing, as to missing portions, rents and tears, in the region of the wound.