A child, aged 5, in bed on a milk diet and suffering from intestinal tuberculosis, had a pH of 8.2 and phosphatic deposit.

Excessive acidity is stated to occur in some cases of eczema.

The therapeutic rendering of the urine acid is now largely used in the treatment of B. coli in urine. In the older treatment with hexamine this was attained by the exhibition of sodium acid phosphate. The amount given was governed more by rule of thumb than the exact estimation of urinary acidity.

The more modern treatment by mandelic acid requires control of the acid at a level of 5 or more.

It has been shown (Stohl and Janney, 1917) [2] that B. coli will not grow when the pH is between 4.7 and 5.

Nitro-hydrochloric acid has also been used for rendering the urine acid (Chance and Maloney, 1935) [3]. It is in this regard interesting to note that the use of 1 per cent lactic acid (which has a pH 1 approx.) is of considerable value as an irrigating fluid in cases of appendix abscess (Lloyd-Williams, 1915) [4]. The inhibition is probably due to the high pH value. A similar action has been observed in chronic enteritis as a result of the administration of lactic acid bacilli and of the acid itself (Lloyd-Williams, 1923) [5].

REFERENCES.

Travel.

FROM ROME TO KARACHI BY AIR.

BY COLONEL K. COMYN.
(Continued from page 61).

A perfect landing was made in the crowded harbour of Alexandria and the 587 miles from Athens completed. The stay at Alexandria lasted rather more than one hour. The passengers were taken to the sailing club for this period while the flying boat was refuelled, engines looked over and crew changed. At 12.30 we took the air again and after circling over the harbour turned east for Aboukir Bay and thence to Palestine, across the Eastern Mediterranean. The sea is left at Haifa and we strike inland past Mount Carmel. There is nothing very striking or unusual in the appearance of the country here from the air and an uneventful lap is
completed on landing at Tiberias on the sea of Galilee, 352 miles from Alexandria. The landing place at Tiberias is very picturesque, with a good landing quay, a hotel and restaurant and several good villas on the side of the lake. After refuelling here we took off again at about 14.30 hours for Lake Habbaniyeh in Irak, a hop of 469 miles first across a part of the French mandated territory of Syria, past the country now occupied by the Jebel Druses and then across some 300 miles of Syrian desert. The Syrian desert looks very forbidding, hundreds of miles of barren waste, sand, mud, bituminous and limestone rock alternating. Here and there are low ranges of rocky hills and deep rocky gorges. The whole area is very sparsely populated by small groups of nomad Arabs, existing as best they can in small collections of crude mud huts, surrounded by a very limited patch of irrigated land barely sufficient to provide crops enough for a few sheep and goats and their owners. The colours of this waste land varied from the yellow of the sand to orange, dark brown and black. As I looked down on this rocky, sandy, muddy brown waste I wondered what would happen if we developed engine trouble anywhere on this 460 mile stretch, with our minimum landing speed about eighty-five miles per hour, our 18 tons weight and our light landing sea floats to take the shock, but I was glad to know that these flying boats are said to be capable of carrying on with only two of four engines functioning.

Rather more than half way from Tiberias to Lake Habbaniyeh the
From Rome to Karachi by Air

The pipeline of the Iraq Petroleum Oil Company is crossed on its way to Haifa—then also in places the desert track of the Nairn Trading Company route to Damascus is seen. We saw four lorries traversing this lonely route proceeding in couples, going along at considerable speed and leaving behind a cloud of dust.

It seems amazing that there should be such vast tracts on the earth uninhabited and seemingly uninhabitable. We reached Lake Habbaniyeh at dusk. Here is now a big station of considerable extent, both R.A.F. and Imperial Airways, but there is nothing else.

The Modern Airport Buildings, Basrah.

Flying over the Syrian desert we had to rise to 10,000 feet to avoid "bumpiness." Desert areas are always more bumpy than most other localities owing to hot air currents rising, formed by radiation of the sun's rays from the bare rock and sand, and cold air currents descending to take their place.

Refuelling at Lake Habbaniyeh occupied a matter of twenty minutes but the stay was prolonged by what appeared to be unnecessary delay over passport formalities. At last, however, we got off as night was falling. Shortly after taking off from Lake Habbaniyeh, while it was still twilight it was possible to see the Euphrates and Tigris rivers stretching away into the distant haze like two winding ribbons of silver laid out on the rapidly darkening sand. It is from these two rivers that the old name of Mesopotamia now merged in Iraq was derived. Further south they join...
together to form the Shatt-al-arab, meaning "River of the Arabs" running
down to join the Persian Gulf below Basrah. The flight from Lake
Habbaniyeh to Basrah was, much to my regret, flown almost entirely in
the dark. Although the whole of this distance, 316 miles, is little else but
sandy desert, yet historically it is one of the most interesting areas in the
middle east, covering the sites of the ancient empires of Babylon,
Nineveh and Ur of the Chaldees; once a rich and fertile land until the wrecking
of the irrigation system in the thirteenth century reduced it to parched
desert. Perhaps some centuries hence a new system of irrigation may
bring back its fertility and prosperity once more.

We reached Basrah at about 20.00 hours, landing on the waters of the
Shatt-al-Arab in a creek in front of the modern hotel and Irak Port
Directorate buildings. Basrah airport is considered one of the finest in
the world. On one side of the Directorate building is the landing site for
Imperial Airways flying boats and R.A.F. seaplanes, on the other side is a
very fine landing ground for land planes, splendidly prepared, levelled and
tarmaced. The hotel itself is most up-to-date and first-rate. It was only
opened in 1938 and is run by the Irak Port Directorate. Every room has
its own bathroom and lavatory of the most modern type, electric fans for
the hot weather, radiators for cold, even electric clocks in all bedrooms.
Downstairs is a modern bar, good billiard room, lounge, dining room, etc.
The service, too, is excellent. Our stay here was all too short as we were
to leave again in the morning at sunrise; called at 04.30 hours, tea and bath, embark at 05.15, and take off at 05.30. Shortly after leaving Basrah we reached the head of the Persian Gulf. Looking down, the sea appears greenish blue; it is very shallow, studded with sand and mud banks, some white with salt, others yellowish brown from silted mud. There is no clear-cut coast line here, but undetermined sandbanks and bays, and away to the west, the flat, sandy Arabian desert stretches, melting into the haze where sea and sand and sky seem to meet, hundreds of miles of emptiness. Below us, too, can be seen again that shadow like the little hornet following us, our shadow reflected on the sea, and on sand and mud.


As the sun rises the temperature becomes hotter. We are dressed in shorts and open shirts and rugs have been stowed away, the tube ventilating shafts bringing cool air to each passenger's seat. But in spite of the cooling draught of air my pat of butter at breakfast was soon reduced to a liquid amber pool not unlike the pools 1,000 feet below us. The route from Basrah to Bahrein, 344 miles, was all the same; proceeding down the Arabian coast on the west side of the Persian Gulf, we reached Bahrein at about 08.30 hours. This is a surprising place. Far away on the Persian Gulf one expected to find an isolated primitive place with a small community, but on the contrary Bahrein, or rather Manama, the European part, is an up-to-date flourishing township. It has sprung up owing to the discovery of oil in the near vicinity, and an American company has
sunk wells, built refineries and established a considerable oil industry. There are splendid bungalows, air-conditioned cinemas, motor cars, private sailing and motor boats, and other sights of advanced civilization. As we circled over this township coming in to land I noticed one of many bungalows with a splendid garden, concrete tennis court and large swimming pool all in its own compound and also its own landing stage on the edge of the sea for sailing or motor boat. Then on the other side of the small bay is a more ancient Arab town. This has been the centre of the pearl industry in the Gulf for generations. The local Sheik has made a fortune for years out of the pearl industry. I am told he is now increasing it enormously by his rake-off from oil concessions. On landing on the quay here, one was offered small seed pearls by local Arabs. They are, of course, mostly worthless, but I was told that if one knew where to go amongst the local Arabs it was possible to obtain quite good pearls very cheaply, but a good knowledge of pearls is necessary before one attempts to strike a bargain.

Bahrein seemed cooler just then than most parts of India at this time of year—there was a cool breeze coming in from the sea. September is the worst month. The sea was shallow and seemed to abound with fish of all sizes.

After the usual half hour or so for refuelling and stretching of legs on the quay for passengers, we took off for the next lap of 300 miles to Dabai on the Oman Peninsula. Between Bahrein and Dabai we cross open sea
From Rome to Karachi by Air

again and there is nothing much to note. We fly at about 1,000 feet and the flying boat is very steady, there is little or no vibration or movement, writing is quite easy and it is quite comfortable to carry on a conversation if one wishes to with other passengers. From Tiberia to Bahrein there were only three passengers—the Imperial Airways' officer going to Bangkok, the French business man and myself. At Bahrein we took on another passenger for Karachi, an Indian Medical Service officer whom I had met before in India, who had been to Bahrein to carry out a mosquito and anti-malaria survey on behalf of the Government.

The landing at Dabai on the Oman Peninsula is in a narrow creek. There are a few Arab huts, a small landing-stage and store huts for petrol. All around, for hundreds of miles, sand and sea. The take-off does not look too easy with no wind or perhaps a cross-wind as the plane has to taxi towards shallow water, mud shoals and sand flats at each end of the creek before rising from the water. Such landing sites in out-of-the-way places emphasize the necessity of adhering rigidly to the limitation of load. From Dabai we crossed the Peninsula of Oman, Arabia, as desolate a spot as could be imagined with a range of high hills running the length of it. These hills are absolutely barren, bare and brown. They are obviously formed from a "fault" in the earth's crust, having been thrust up by volcanic or earthquake action. There are some valleys in this range of hills in which, it is said, the temperature is so high that no form of life can exist. This is quite understandable for the solar radiation from the precipitous slopes of limestone or gneiss volcanic rocks must be terrific.

Flying over this peninsula with its rocky pinnacles and deep gorges the air pockets and currents were numerous and caused considerable bumpiness, but it was not much more than half an hour before we reached open sea again and directed our course across the Gulf of Oman to the Persian or Iran Coast, striking the coast near the Iran-Baluchistan border. Here we landed at Jiuni, a creek on the Baluchistan coast which has taken the place of Gwadar Bay as a landing-place. It is approximately 450 miles from Dabai. Having refuelled here, we took off again on the last lap of the journey to Karachi. Now we passed some of the most interesting rocky coast scenery, which must be unique, and obviously due to geological faults of earthquake or volcanic origin. The sandstone strata, or perhaps they are volcanic lava, have been thrown up to a height of 1,000 to 1,300 feet with a layer of brownish rock on the top. The sandstone is in column formation looking like masses of tubes resembling those of a large church organ, set side by side. Many of these are of enormous diameter and are hollowed, no doubt originally by gases emanating from the earth's core. In one place this similarity to church organ pipes or to fine Gothic pinnacled architecture is so striking as to have given rise to the name "the Cathedral rock."
The remainder of the trip is very ordinary, flying very steadily along the Baluchistan coast at about 500 feet up, occasionally dipping into low thin cloud, and then quite suddenly, here we are at Kiamari, the port of Karachi, at 18:15 hours, and our journey by air ended.

The total distance flown from Bracciano, Rome, to Karachi was 3,791 miles, leaving Rome air base at 16.15 hours on Sunday and arriving at Karachi air base 18.15 on Tuesday. The first half day's flying covered 683 miles to Athens, on the Monday we did 1,724 miles Athens to Basrah, and the last day, Tuesday, 1,384 from Basrah to Karachi. The average speed was 160 to 165 miles per hour. We landed ten times between Rome and Karachi, refuelling at each stop, taking up or putting off passengers or mail at some places. At each of these stopping places, when refuelling, one is asked politely if one would like a breath of fresh air in the launch or to stretch one's legs on the quay for a quarter of an hour; one is always ready to do so, to have a look at the flying boat lying at her mooring and for a look round. I soon discovered, however, that what I considered great thoughtfulness and consideration on the part of the ship's officers was really a polite way of getting us out of the way during refuelling. All the passengers and most of the crew, all except two, I think, usually are taken off in the launch in this way owing to the danger of fire from petrol fumes—may be from the careless smoker, perhaps, or some other cause.

It must not be supposed, when looking down the list of places called at on this route that such a trip affords a good opportunity for sight seeing. It does not. It enables one to study country and geographical features between towns and cities, but there is no opportunity of seeing the places themselves. Landings are mostly at some distance from the towns and stops rarely exceed one hour, more usually are half an hour, just enough for refuelling, a quick survey of engines, examination of passports and interchange of passengers. At places where the night is spent one usually arrives late in the evening and leaves again at crack o' dawn, 05.30 or 06.00 hours. But as the whole essence of air transport is speed of transit and that this and safety cannot be combined with sight-seeing facilities, this criticism is unfair.

As regards expenses en route. They are nil, apart from any drinks one has on board or at hotels at which one stops.

All bus arrangements, hotel bills, tips and feeding arrangements are included in the fare, anything beyond this is not asked for and does not seem to be expected. The Company make it a point of their service that the passage rate covers every expense.

Several of the passengers were air sick at times, but this did not seem to last long, recovery seems to be more rapid than in the case of sea sickness. Fortunately, I did not suffer at all this way myself,
although the steward at one time while crossing the hilly desolate peninsula of Oman did his best to make me so by producing a large and convenient bowl and placing it by my side, but it had no other effect than producing a smile of complacency on my face. I enjoyed every moment of the trip. I cannot speak too highly of the comfort and almost unbelievable celerity of this means of proceeding to or from India.

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**Current Literature.**


[The abstractor considers this to be a most important paper and one that may well mark the beginning of a new approach to the problem of preventing air-borne infections.] The authors, in their introduction, state that a control of the sanitary condition of the air of buildings, lessening the risk of air-borne infections, is now, as a result of experience of the last few years, as much within our reach as is the prevention of intestinal infection due to impure water or impure food.

**The Nature of Air-Borne Infection.**

It has been shown:

(1) During coughing and sneezing, minute droplets containing micro-organisms from infected surfaces may be ejected into the air.

(2) Most of these droplets are sufficiently small to evaporate before they can settle to the ground, leaving minute residues suspended in the air.

(3) These nuclei, in which the micro-organisms remain viable for considerable periods, may drift in air currents as would particles of cigarette smoke.

(4) The air breathed commonly by the various persons congregated in a room or other enclosed space can thereby transfer these organisms from one person to another and plant them upon the susceptible tissues of the respiratory tract.

[Measurements of air-borne organisms have often been made in the past by exposing culture plates in the air to be tested, but the adhesion of bacteria (in size so small as to have a theoretical rate of settling in still air of less than 1 millimetre per second) must be very much a matter of chance dependent upon accidental draughts, and also perhaps upon electrical charges of which we know little.]

The authors base their findings on measurements of air-borne cultures of *Bact. coli*, which may be blown up into the air in spray droplets from