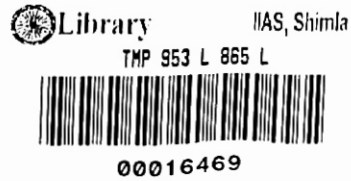




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## THE LIQUID GOLD OF ARABIA

By BRIGADIER STEPHEN LONGRIGG, O.B.E.

Lecture given on November 24, 1948, Lieut.-General Sir Adrian Carton de Wiart, V.C., K.B.E., C.B., C.M.G., D.S.O. in the Chair.

The CHAIRMAN: Our lecturer, Brigadier Longrigg, served in the first World War, and in 1918 entered the British Administration of Iraq. Two years later he took service with the Iraqi Government, in which he worked from 1920 to 1931.

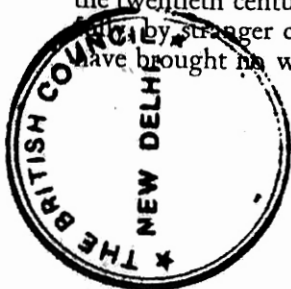
He has visited Iraq many times since then, and has also lived in Syria, the Lebanon and Palestine; he has visited the Arab areas of the Persian Gulf and Sa'udi Arabia on several occasions.

During the second World War Brigadier Longrigg was Governor of Eritrea from 1942 to 1944. He has written a history of that country as well as a history of Iraq, which is the standard work on the subject. He is now connected with the Iraq Petroleum Company, and proposes to discuss the importance of oil in the life of Arabia as a whole.

THE story which I have been asked to tell contains, I am afraid, little that can be new to most of an audience such as this; nor shall I try to embellish it by heightening contrasts or the use of brilliant colours. It concerns, however, a great, interesting and famous territory, and the manner in which this, in the most recent years, has become the stage of a social and economic revolution unusual in form and scale; and it speaks of an important new source of wealth for the world at large.

The Arabian peninsula—the Island of the Arabs—has throughout history enjoyed a special place in the worlds of romance and sentiment, of poetry and song. There is, indeed, beauty as well as vastness in this great territory—beauty of sand and sunset, palmgrove and camp, and village, desert and garden, terraced mountain and blue sea; and there was, until recently, the lure of the unexplored. Even so, convention has been generous, perhaps over-generous, to the appeal of the Arab steed, the Gold of Arabia, the singing sands, the spices and the perfumes of Araby, the secret cities of Arabia the Happy.

If the country has been thus highly praised—a country, moreover, easily accessible from every sea and offering cliffless undefended coasts—it may at first sight be surprising that, weak in a military sense as it has always been, it has managed to keep its independence, while neighbouring Africa has been almost completely partitioned among the powers of Europe, and India the prey of successive conquerors. It is true, indeed, that the Arabian fringes have been penetrated and even dominated at times by foreigners: the Yaman by Ethiopians in the fifth century, Oman more than once by incursions from Iran, various trading posts and ports by the Portuguese and British in the sixteenth and seventeenth centuries, and the Hijaz and Yaman, partially and discontinuously, by the Turks from the sixteenth to the twentieth centuries. Even Najd has been visited, briefly and unsuccessfully, by stranger columns. But these attempts to dominate Arabian soil have brought no wealth and no tranquillity to invaders or invaded; most



have been shortlived; and none, save the compact British settlement at Aden, have done more than hold fitfully a few of the main coastal centres. By and large, Arabia south of the Fertile Crescent has kept its political as well as its social independence. The reason, simple enough, is that the hard facts of Arabian climate and scene are not only changeless but by their inhospitable rigour have always constituted its defence. No one has long or keenly envied the Arabians their country; they have on the whole been little molested by reason, merely, of the very aridity and heat, dust and desert, of which so much of the peninsula is formed, and by which its various provinces are divided. They have enjoyed the safety of the undesired, and have lived lives to which a hundred generations have specialized them, in conditions barely tolerable to others. Even in the favoured Yaman, the wastage of Turkish soldiers' lives was proverbial, and all invaders, from Ælius Gallus onwards, have met the same deadly welcome.

It is certain, none the less, that human life has been lived, by a civilized and intelligent population, for thousands of years not only in the relatively well-watered Yaman and Oman but in the great wastes of the interior and the low sandy coasts. This was less remarkable in ages when human wants were everywhere few and simple: when shelter was unasked, food of the plainest kind could be found, clothes were of wool or skins, weapons home-made, and the direst poverty no disgrace even in rulers. The purpose of this lecture will be to indicate that, by the third decade of this century, a position unlikely to be temporary or curable had been reached in Arabia wherein the claims of people and princes alike to a life far superior to the merely primitive—indeed, in the case of the rulers, increasingly ambitious and sophisticated—seemed impossible of satisfaction from purely Arabian sources; the country was poorer than ever before, and its prospects darker. Such, as I hope to show, was the aspect of Arabian society a mere twenty years ago, immediately before an Earth-fairy, who hitherto had cast no glance in its direction, worked the transforming miracle which opens the new age in Arabia.

What, then, was the situation in this wide and famous territory in the late twenties of this century? Politically, it had regained stability after the 1914-18 war, though the period of government subsidies was at an end. The Hijaz, free of Turkish overlordship and of its Sherifian rulers, had fallen to the strong beneficent arm of Ibn Sa'ud, who still firmly held his Hasa province, and had added the Jabal Shammar to his own patrimony of Najd: Sa'udi Arabia had been created. The patriarchial isolated Yaman, free of the Turks, was to make its terms with the Sa'udis in 1934, and still resisted all openings of its doors to the modern world. The humble sultanates of the Aden Protectorate showed no leanings either to unity or to progress. That of Oman, deeply divided within and modest in its outside relations, lay poor and stagnant. The Gulf coast was fringed with its string of small mainland shaikhdoms of the Trucial Coast and Qatar and Kuwait, and the island shaikhdom of Bahrain; these all clung to their protected independence, but seemed to expect a future at least as humble as their past. The political entities of Arabia, in fact, from the greatest to the smallest, had little to anticipate but, at the best, survival.

Meanwhile on the social and economic side the territory was, as between

the areas of local surplus and of deficiency, rather less than self-supporting—as it had always been—upon the very lowest level of subsistence. It had, on balance, to import foodstuffs, partly from sheer necessity and partly because custom had by now made indispensable certain products not native to the country, notably tea, sugar and rice. All cotton piece-goods necessary for clothing must be imported, save for a few crude lengths spun and woven in Hasa and Oman. Hardware, pots and pans came from abroad, since neither locally-made pottery nor the brass and copper vessels of the Yaman and Oman sufficed for Arabian needs. Arms and ammunition were bought in other countries, and must be paid for. And the same was true of oil for lamps, and of many household articles strange to the tents and hovels of the poor but usual in the rich houses of Mecca and San'a.

All this could not but mean that wealth must somehow be found, from this poorest of countries, to pay for all these imports: and we will pass to examine what sources of wealth there were upon which Arabia had in the past been able to draw. One of these, since antiquity, had been political or military expansion—the invasion of Ethiopia, for instance, by south-Arabians in pre-historic days, that of the whole Middle East by the Muslims in and after the seventh century A.D., and that of East Africa in modern times—resulting in such volume of loot or tribute or trade as the invaded territories could offer; and another—far more important because more regulated and recurrent—the steady infiltration by Arabs of Arabia into the related countries to the north-east and north-west. This has been throughout history, and certainly pre-history too, the most constant feature of Arabian demography—the steady drift of individuals, families, clans, and whole tribe-groups into North Africa and the Fertile Crescent. Apart from the outstanding historical examples, every resident in the Middle East can think of a dozen specimens of the process—families of Arabian origin now in Iraq or Syria, tribes of Najd or the Yaman now in Africa or the Shamiyah, the drift of unemployed men from Kuwait to Basrah. There is no better single example of emigration on its positive, wealth-producing side than that of men of the Hadhramaut to the Dutch East Indies and Singapore where, from the close of the nineteenth century, they have settled and prospered and brought or sent back fortunes to the quiet cities of their native wadi. Others from the Hadhramaut have served the rulers of Haiderabad, men from the Yaman and the Hijaz have settled on the Somali coast, and Bombay has its Arab colony. Apart from these longer-range enterprises, the steady northward permeation from Arabia explains much of the unity of tradition—as well as of language, faith and blood—which has ensured the singleness of the modern Arab world; but it was also the regular means of adjusting the Arabian population to its resources, and limiting the need to import what could not be paid for.

But in spite of expansion and emigration an economic problem persisted and other means were required to solve it. Something further could be done by a special form of "invisible export"—the development of a religious tourist-traffic at Mecca. The great annual pilgrimage, to which Mecca owed its position since pre-Islamic times, has been for twelve centuries the greatest source of wealth in Western Arabia; it created markets, kept routes open, focused trade, and offered its tens of thousands of the

Faithful to the exactions of the Hijaz tribes and Amirs. In the twentieth century it remained the sole industry of that area, and since 1926 provided nearly the whole of Sa'udi revenues. And other "invisible exports" have been in some degree linked with the pilgrim traffic—that of the ancient silk and spice transit trade overland from the East to the Levant, and that of the earnings of Arab seafarers everywhere from the East Indies to South Africa. A special form of commercial activity worthy of mention was peculiar to Kuwait—that of smuggling merchandise across the open desert into Iraq: a time-honoured lucrative traffic most difficult to check. But other specialities of the Gulf shaikhdoms, famous as wealth-producers in their time, had much diminished by the early twentieth century. I refer not so much to the sea-borne slave-trade in African negroes, since the greater part of these stayed in Arabia and thus formed an import, while only a lesser part was profitably re-exported to Iran; and the same applies to the arms traffic, for which the Oman ports were internationally famous in the nineteenth and well into the twentieth centuries. The greater resource of the Trucial Coast shaikhdoms was, for centuries, piracy—which, indeed, gave its name to that coast before the Maritime Truces imposed by Great Britain early in the nineteenth century changed the name to Trucial. This piracy was the sea-side equivalent of the normal desert camel-raiding, satisfied the same instincts, brought much greater profit, and moreover was unilateral. It takes a high place among Arabian sources of wealth in all but the latest age.

Turning now to material exports, we shall see how modest these have been. The loading of a few cargoes of foodstuffs from areas of local surplus could do little to correct the balance of trade; if some maize and fruits could be spared from the Yaman, some dates and vegetables from the Oman coast, dates and rice from the Hasa oases, these insignificant exports were more than balanced by the import needs of the Hijaz and Kuwait and—for one commodity or another—nearly every other area. The coffee of Yaman, indeed, deserves a special mention, because this culture, imported from Ethiopia in the early years of our era, was perennially famous, and the Yaman coffee is in fact of the highest quality; but by the twentieth century it was no longer without rivals, Brazilian and others, and had passed its best as a major trade item. Nor could the regular but small—sometimes altogether petty—surpluses of other natural produce do much to enrich the territory: the dried fish of the south and east coasts, the gums of the south and south-west, the date-fronds and matting of Oman, the camel-hides and the sheep and goat-skins, the animal-fat in tins or skins. To these, so pathetically small for so vast an area, can be added a few camels of Najd, and the more highly prized beast of Oman, a very few Arab horses—few because the horse is in fact a rarity and a luxury in peninsular Arabia—and the fine donkeys of Hasa.

These almost exhaust the list of exported natural products. Of minerals there is little to say: some salt from the Yaman coast and from Aden, a few loads of charcoal from the Hijaz, semi-precious pebbles of onyx and agate from the Yaman. All these could make no very serious contribution; more important in antiquity was the "gold of Arabia" extracted from the northern and central Hijaz on a scale which legend or history would have

us think of as considerable. Mining was discontinued as profitless in medieval and modern times, but has been resumed at Mahad al Dhahab, not far from Mecca, during the last few years, an interesting and perhaps hopeful enterprise.

The list of locally-made articles for export is not impressive. It contains the saddles and leather belts and tents of the south-west and south, the daggers of the Yaman and Oman, the copper and brass vessels of Oman and Hasa, the home-made indigo dye and dyed cotton-lengths of Yaman, some straw mats and goat-hair rugs and woollen cloaks; some soap and cigarettes at Aden, and boats built at many hardts of the south-west and the Gulf. In these few words we can dismiss, as more ingenious and creditable than economically considerable, the arts and crafts of Arabia. It remains to speak of one product, the most precious and characteristic of them all. The shell of the pearl-oyster is collected and exported from all the Arabian coasts, the pearl itself from the little principalities of the Gulf, from the confines of 'Iraq to Ras Masandum. These pearl-banks have since the dawn of history provided the divers and crews of the pearling-fleet with lives of poverty, ill-health, endless hope, and occasional fortune—and the owners and merchants with comparative, sometimes authentic, riches. Always a great part of the manpower of these coasts has been devoted to, or monopolised by, pearl-fishing, their resources used for the maintenance of hundreds of boats, their prosperity gauged by the annual intake and sale of pearls; a great traffic, with Kuwait and Bahrain as its centres, regulated in its every detail by traditional rules and habitudes. As a source of wealth, however, the pearl trade must be judged, even in its best years, as disappointing; the vast majority of those who follow it live and die in debt, its proceeds fall into few hands, and enrich chiefly the foreign buyers and, locally, a limited circle in a limited area. It is indeed the chief accomplishment of the pearl trade that through it civilized human life has proved possible at all in the grim regions where it is practised.

Thus we conclude our survey of Arabian wealth-producing resources in the twenties of this century. We find that the old profitable cross-country trade-routes were no more, killed largely by the Suez Canal; piracy was ended, the arms and slave trades dead or dying, government subsidies discontinued, the Mecca pilgrimage sometimes of tragic smallness and always dependent on the policies, the finances, the communications of other countries. Material exports of foodstuff or natural produce or minerals or livestock or manufactures were humble in the extreme. Coffee was something, but not much; pearls were still there, but the trade had entered a period of fluctuating decline emphasised by the world financial crisis of 1929-31; prices were poor, boats laid up, crews dispersed. Political expansion was no longer possible, emigration was less easy into the modernized, passport-using Arab states. Arabia had been forced back to live on its own unaided resources, and it could scarcely be imagined that these would ever greatly increase. The prospect of these tragic conditions—for such they were—for the rulers of the Peninsula was very grave. All had had, during and after the war of 1914-18, glimpses of higher standards of life and empire; all had seen modern States, with developed services and equipment, founded in the northern Arab territories. And now, by 1930,

Kuwait and Bahrain and all that coast stood under sentence of death by slow undernourishment, and the King of Sa'udi Arabia himself could look round in vain for some revenue wherewith to maintain his state, continue his princely hospitality, keep open his routes and wireless-stations, pursue his policy of settlement of his Ikhwan. In a word, there was every danger that poverty, endemic and governmental, would depress ever lower the standard of life throughout Arabia, and weaken its rulers to the point of losing prestige, then obedience, and finally the power to hold and administer their peoples.

It was at this hour that the discovery of oil in Arabia changed its fortunes, suddenly and no doubt for all time.

In telling the story of Arabian oil, to which I will now proceed, I shall omit all geological and technological and scientific considerations, which neither time nor my own limitations would permit me to include. The story, which I will tell in chronological order, goes back to the last days of the Ottoman Empire, when a licence to seek for oil in the Farsan Islands off the coast of Asir was given to a party of German or Turkish prospectors. These sought in vain. In 1918 two English oil-men toured in the Hadhramaut, and another in 1919-20; they found nothing that could interest them. In 1923 Major Holmes on behalf of the Eastern and General Syndicate obtained an oil concession for the Hasa province from Ibn Sa'ud; but it soon lapsed by reason of a general lack of interest. In the same year two American geologists visited the south-western Yaman, and reported nothing that was promising. In 1925 the Anglo-Persian Oil Company sent geologists for a short visit to Oman. In 1927—the year of the great oil strike in northern Iraq—the Shell Company obtained rights from the Idrisi of Asir to drill on the Farsan Islands; they drilled, and withdrew. In 1928 a concession for Bahrain Island, obtained from the Shaikh by Holmes in 1925, was—after being rejected as valueless by certain British interests—transferred by the Gulf Oil Corporation who had bought it, to the Standard Oil Company of California. The latter formed, and registered in Canada, the Bahrain Oil Company, or “Bapco,” and commenced to drill. In June, 1932, they struck oil in the centre of the island, pressed on with drilling and development, and were ready to export cargoes thirty months later. This was the turning point.

In 1933 the Kuwait Oil Company was formed, half-and-half between the Anglo-Iranian (former Anglo-Persian) and the Gulf Oil Corporation; and the first grant of an oil concession for eastern Sa'udi Arabia was granted by King Ibn Sa'ud to the California Company, against very half-hearted British competition, of which your present lecturer was the embarrassed and frustrated spokesman at Jiddah. In 1934 the Bahrain concession, held by Bapco, was redrafted and rebestowed, while the first tankers came and went; and the Shaikh of Kuwait reached agreement with the Kuwait Company. Standard Oil of California began drilling in al Hasa. In 1935 the Shaikh of Qatar gave a concession to the Anglo-Iranian, who by agreement transferred it to Petroleum Development (Qatar), Ltd., a member of the Iraq Petroleum group. In 1936 California admitted the Texas Company to a half-share in their Arabian interests, and Caltex was thereby formed. The first oil in the Peninsula itself was struck

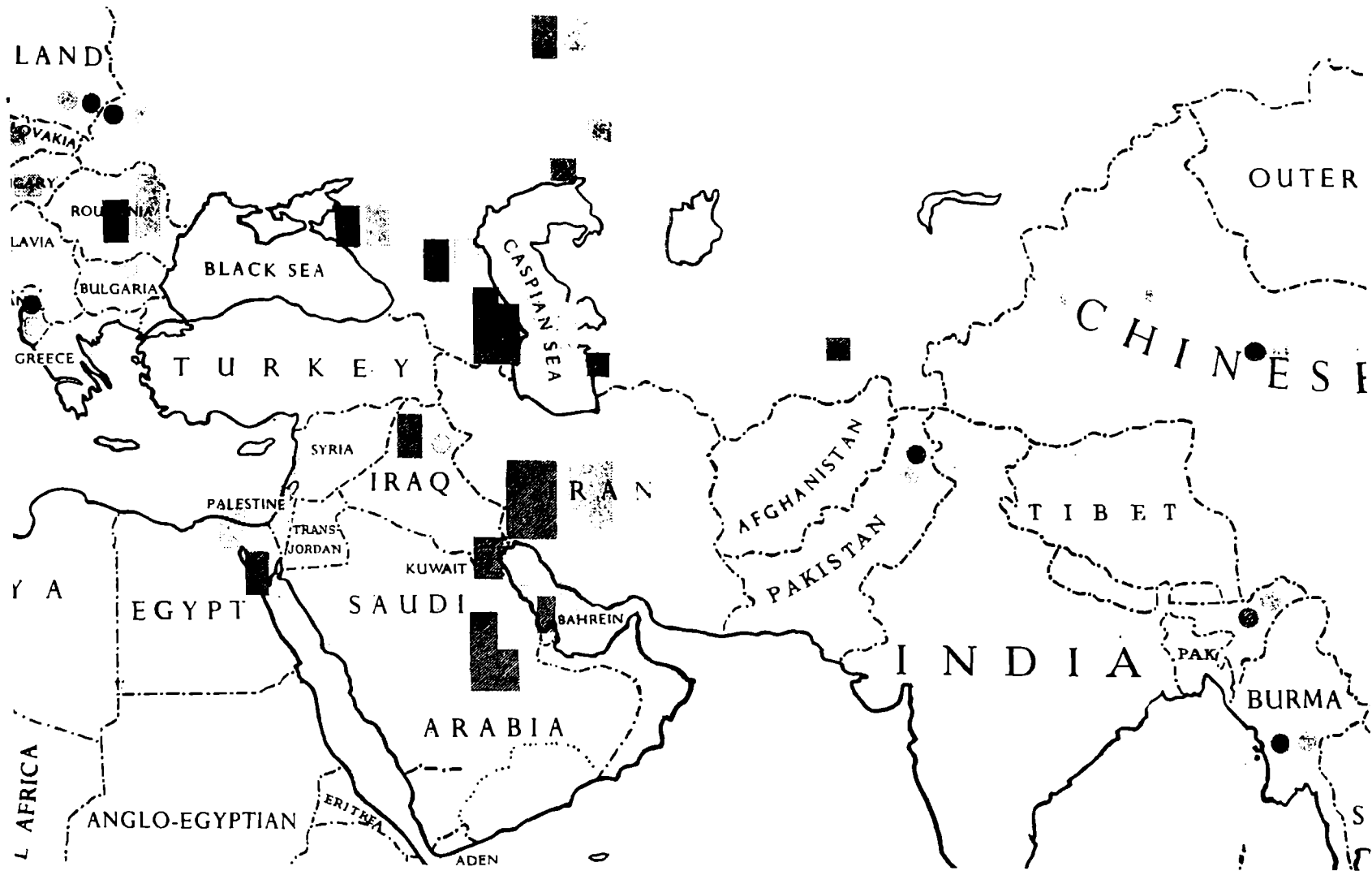
this year at Damman in al Hasa—a moment of enormous promise. King Ibn Sa'ud at the same time gave to an I.P.C. associated company—Petroleum Development (Western Arabia)—represented at Jiddah and Taif by your lecturer as negotiator, a concession for the Hijaz and Asir.

In 1937 the I.P.C. group collected the first few of its series of smaller Persian Gulf concessions—for Oman, Dubai, Sharjah, and others—secured exploration rights for the Aden Protectorate, and launched a geological party in the Yaman lowlands, and others in its Hijaz and Qatar territories. The first well in Kuwait was a failure, and further drilling in al Hasa was for the moment unrewarded. But development continued at Bahrain; the first refinery there was opened, of which subsequent years were to see the throughput increased two, four, and finally fifteen-fold. In 1938 the Caltex enterprise in al Hasa, now known as the California-Arabian Standard Oil Company, or "Casoc," found the true horizon of their great Damman field; and a month before the Kuwait Company had struck oil in its present Burghan field, now revealed as one of the very richest in the world. They and Casoc pressed on with drilling on their discovered structures. The I.P.C. group obtained further rights on the Trucial Coast, explored parts of Oman, drilled without success on the Farsan Islands under their Hijaz concession, explored the Hadhramaut interior, and spudded in at Qatar. In 1939 they struck oil on the Dukhan structure in western Qatar, and signed a concession for Abu Dhabi. Casoc obtained more territory in eastern Arabia from Ibn Sa'ud, pressed on with development in Hasa, and finished a pipeline from Damman to the sea at Ras Tanura; export of oil began and was to continue, on a small scale, throughout the war. Bapco continued in production, and in 1940 was granted further territory—largely reefs, islands, and open sea—by the Shaikh. Casoc in this year discovered its Abu Hadriyah field, and the Kuwait Oil Company drilled more wells at Burghan. Prospects in the Hijaz by now appeared hopeless, and exploration work elsewhere in Arabia ceased "for duration."

In 1941 the Hijaz concession was abandoned. In the east Casoc discovered the great Abqaiq field, and the Qatar Company confirmed its smaller structure at Jabal Dukhan.

In 1942 Bahrain continued to produce, refine and export, as it did throughout the war; but in Qatar and Kuwait work was suspended, and drilling ceased for two years in Casoc territory. In 1944 the latter company, its name now changed to Arabian-American Oil Company, or Aramco, restarted drilling at Damman, and next year located its Qatif field. In 1945 also rigs were working again at Burghan, and the first shipment of Kuwait oil left Fahahil in June, 1946. In 1945 the Damman-Bahrain pipeline, of which seventeen miles is submarine, was completed and Sa'udi oil was treated, as it still is, in the greatly extended Bahrain refinery, as well as in another refinery finished in the same year on the mainland at Ras Tanura, the Aramco loading terminal.

Post-war developments have shown a rapid further acceleration, which I shall shortly summarize. At Kuwait's Burghan field, seventeen wells were in production by mid-1948, loading arrangements completed to deal with heavy shipments, jetties under construction, and production running at a rate of some five or six million tons a year—a figure shortly to be



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# LEGEND

METRIC  
TONS

Production

Refining  
Capacity

10,000,000



5,000,000



1-5,000,000



500,000-1,000,000



under 500,000



greatly increased. Present export is by tanker from Fahahil terminal, in crude form; but a large-diameter pipe-line is planned to carry Kuwait crude to the Mediterranean, and a small-scale refinery is under construction. The Shaikh's oil rights in the Kuwait-Sa'udi Neutral Zone, of which the Sa'udi half-rights were conceded to Casoc in 1939, have lately been allotted to an American Independent group—new-comers to the East—and arrangements for combining to explore and exploit this highly promising acreage are said to be in hand. In the Hasa province, Aramco located the Buqqah field in 1947, and that of Abu Dar this year. The local pipe-line system has been greatly extended, the terminal and the refinery at Ras Tanura developed to a high capacity; some 80 per cent. of Sa'udi production, which to-day is at a rate of some fifteen to twenty million tons a year, is refined at Ras Tanura and Bahrain. This figure of output will be increased by 50 or 100 per cent. if and when the large-diameter pipe-line to the Lebanese coast, now planned and designed and partly completed within Sa'udi territory, is able to extend across its western neighbours. In this project, as in all the California-Texas enterprises in Sa'udi Arabia, other American interests are likely very soon to be associated—those of the Standard Oil Company (New Jersey) and of the Socony-Vacuum Corporation. Bapco has since the war maintained its own production of some one and a quarter million tons a year, and has greatly extended its refining and loading potential, both for its own and for Sa'udi oil. The Qatar field sustained a bad set-back by the dismantling and destruction of all its wells as a war "denial measure" in 1942; but work began again in 1945 and drilling in 1947. New producing wells are now ready, a sixty-mile pipe-line to the east coast, and tankage and terminal and all associated installations are in hand; export, on a scale of the order of two million tons a year at first, is expected to begin early in 1950. Other companies of the Iraq Petroleum Company group have since the war carried out geological and geophysical exploration in the Hadhramaut, in Dhofar, in the Oman hinterland and on the Trucial Coast.

I can now summarize the stage reached to-day in the oil industry in Arabia—with the proviso that it is still moving forward and outward with growing momentum, and to-day's achievements may well be dwarfed by to-morrow's. Western Arabia has been, at least temporarily, abandoned. The south-west and the whole south coast seem to show little promise. The Trucial Coast and the western Oman fringes remain under close study; more may well be heard of them. Qatar is under strenuous development, and will soon be an exporting country. Eastern Sa'udi Arabia has emerged as an extremely important oil territory—one of the world's half-dozen greatest—with a number of producing fields and immense proved reserves. Kuwait must be ranked as not inferior to its greater neighbour; it possesses at least one field quite outstanding, if not indeed unique in the world, for its potential productivity. Bahrain has assured but relatively small-scale production. The four territories offer jointly the Arabian contribution to the world's oil supplies—a contribution of major importance by any standards; and to-morrow may see it doubled or trebled from its present level of some twenty millions of tons a year if materials, especially steel, are made available: if political conditions are not adverse to the completion of

the great pipe-lines to the Mediterranean : if tanker fleets multiply : and if the concessionaires of other Arabian territories join their neighbours in finding and exploiting new fields.

Meanwhile enormous difficulties had been overcome in the course of prospecting and drilling, pipe-laying, storing, processing and refining, shipping and the various associated operations, all in inhospitable, largely uninhabited, desert, or near desert, country lacking water, shade, fuel, food and every other necessary resource. In arid desolate wastes stores, factories; workshops, hospitals, power-plants, laboratories, houses and cottages, halls, canteens, water-wells, clubs, bathing-pools and a dozen more types of building and installation had been erected in carefully planned settlements capable of ensuring the health and activity of hundreds of Europeans and Americans, and many thousands of local employees—Kuwaitis, Qataris, Bahrainis, Sa'udis. The oil industry in Arabia is fully established, while improving and extending that establishment day by day; it is in production, while increasing its output month by month; it has become in ten years incomparably the greatest employer and the richest source of material wealth in the Peninsula.

The effects on Arabian politics and society, which it is the purpose of this lecture to indicate, must, it is obvious, vary regionally with the scale of the operations. In South-West Arabia, the Yaman and the Aden Protectorate, the industry has so far put down no roots at all, and contributed only the interest of, and small profits realized from, seasonal survey parties. In Oman and the Trucial Coast the rulers have received modest but comfortable sums on signature of their concessions and annual payments ranging from the equivalent of £3,000 to £20,000; and the expenditure of exploration parties and employment of local men, have been and still are welcome items in so humble an economy, and may lead to others far greater. Meanwhile they perceptibly improve the position of the Shaikh or Sultan. The four territories now producing oil have, of course, benefited incomparably more. The rulers, without cost or effort, receive or will shortly receive from royalties per ton of oil and from commuted taxation net annual sums ranging from half a million sterling to six or more millions payable in gold or dollars—State revenues greater beyond compare than have ever been known in Arabia : and indeed—most conspicuously in the case of Kuwait—an almost fantastic reversal of their age-long penury.

With these resources it will be possible—as in Sa'udi Arabia has already been accomplished—for the rulers to maintain and increase their own position and dignity, and to wield an enhanced power. The fear of the disintegration of the State, due to lack of that cohesive force and indispensable royal weapon, money, has vanished, and with it fears of social disorder, frontier troubles, and the evils of anarchy. The princes are or will be able to provide disciplined and well armed Security forces : chosen and well paid judges and officials : and foreign advisers of their own seeking. Communications—roads, telegraphs, posts, railways—can be created. Works of agricultural development, experiments in stock-breeding and the utilisation of natural products, can be carried out. Public services, notably those of education and of medicine, can be inaugurated. Life, at least in the urban centres, including those far from the oil-fields, in Najd or the

Hijaz, can be refined and enriched by such modern amenities as are suitable and welcome. There are already many signs that in all such projects the oil companies themselves, served by experts versed in and sympathetic to the Arabian world, will be among the chief supporters and advisers of the governments.

The new position of these States will not be marked only by internal changes; they will cut internationally a very different figure from that of the past. Small territories of no great interest to the world have in a day become wealthy, desirable, strategic. Sa'udi Arabia has become a leading instead of a backward member of the Arab world, and is well able to sustain the rôle. The old defence of their independence, sheer undesirability, exists no longer; its place is taken by the changed fashion of our times, in which conquest and land-grabbing and even colonization are no longer respectable, and by the inhibiting effect of mutual jealousy among possible aggressors: no great power is likely to gobble up Kuwait or Qatar. But a sense of strain, of self-conscious importance, of a balance of stresses, and the certainty of being watched and envied will deprive the governments of these territories of something of their ancient peace; comfortable obscurity is gone for ever.

To the public—a public assembled in haste from nearby villages and tribes, and from ever further afield as the need grows and news spreads—the practical benefits of the new position are no less immediate than to their lords. They take the form of good wages and allowances, food, housing, water, light, medical services, schools, technical training, and all the advantages offered by great and enlightened organizations which spare neither effort nor cost to treat their workers and the public wisely and progressively. And the comparative enrichment of the companies' own employees spreads to wider regions through the dispersal of their purchasing power to elsewhere in Arabia, through the use of local contractors and suppliers, and through such enterprises as road-making, well-digging, harbour works, and in future doubtless railway construction.

I will pause here, for one moment, to touch on a further possibility which is sometimes suggested in the relations between the oil companies and the territories in which they work—territories which are characterized, as we have seen, by general poverty, by lack of available capital for the development of either agriculture or industry, and by the greatest inequalities of wealth between the few rich and the many poor. It has been suggested that the companies should not be content to be admirable employers of labour and, by their royalties, large contributors to the government treasuries. They should also put back part of their oil profits—which after all is the oil of the country—into other forms of local enterprise, such as productive works of irrigation, the financing of agricultural estates run on modern lines, the inception of new industries; and all this with the simple object of “doing more for the country,” helping to cure the evils of an under-capitalized or indebted agriculture, spreading more directly and more widely the blessings of the new wealth, and creating yet more. Such an idea, it will be remembered, found a place in the draft—but unratified—Anglo-American Oil Agreement of 1945, which speaks of a “Bank for general economic development, covering all the territories con-

cerned, to which the companies would have assigned a proportion of their profits for investment in long-term development projects, thus would secure that development of the chief resources of the territories should provide a general rise in the standard of living." Proposals on such lines seem to deserve careful and very sympathetic consideration from the companies. It is not hard to imagine, on such lines, great and profitable enterprises, of social and economic value, offering improved living conditions over a wide field, and reinforcing political stability. But, even granting the full willingness of the companies and the abundance of their profits, it is not as easy as that! Firstly, they might well feel that excursions outside their own industry could lead to various sorts of difficulty and embarrassment; next, they might fear that popular gratitude would not be unaccompanied by the illwill of a powerful class or classes whose own prerogatives or monopolies might be threatened. Again, they might expect, sooner or later, an attitude of suspicion by the ruler or government at the invasion of too large a part of the national life by foreigners; and they would be rash to anticipate complete freedom of choice and movement in the conduct of their own affairs, once these became closely integrated with those of the rest of the local public. These are thoughts seriously to check too quick a readiness by the oil-company shoemakers to desert their lasts; but the door to such would-be helpful outside enterprises should, both in principle and in practice, remain unbolted and unbarred.

To return now to the actual activities of the companies in Arabia, these as they are cannot but lead immediately, and in widening circles, to fashions of life more complicated and less precarious than of old, for which the improved public services henceforth organized by the governments will provide the setting. Not only practical training in the oil-fields and refineries—not only education begun in companies' schools and continued perhaps in Great Britain or America—not only free mixture with skilled and educated or part-educated workers from the other Arab countries, in workshop and messroom—and not only the visible example of Western ways of life in the shared settlements and townships already under construction, but also the whole colour and pulse of modern life, the opening of windows to the outside world, the revelation of new standards, must profoundly modify the life of the people.

Such modification is not without dangers: spiritual dangers, because an abrupt break with tradition in manners and observances, an acceptance of new values, may too easily leave its victim rootless in a world without moral security or the sense of solidarity with the past and with his own kind: and political dangers, because the sudden formation of a class of industrial workers, with their own hierarchy and ambitions and modernistic outlook, emphasised by contacts with the political world outside, may well lead to uneasy reaction against the patriarchal form of society, the acceptance of authority, hitherto dominant in Arabia. It is notorious that concentrations of factory workers, especially if all new to the jargon of modern politics and to its ideas presented in forms of studied attractiveness, offer a fair field for the propagandist and a prize worth winning for the Red or any other flag. The enriched princes of Arabia will therefore be wise to watch prudently not only the jealous ambitions of their own rela-

tions and courtiers, but the tides of public opinion which strange conditions and influences will not fail to move in and around the oil-fields.

This revolution of society, spiritual and visible, will in some cases, chiefly in the oil-field areas, be rapid and definite. In others, on the fringes of the new industrial world, it will be slower and partial and at first mainly material. In the more distant parts of Sa'udi Arabia it will affect at first only the higher and the urban classes, by indirect influence and by the new pretensions of the government's public services. And always in wide spaces of Arabia villager and nomad tribesman, mountain and desert-folk alike, will still for centuries live as changeless as their own sands and sea-beaches; the barest of livings will still be wrung from the seas and steppes of Arabia by thousands of its backward and hungry sons. Always a land of contrasts in its varieties of landscape, Arabia is destined also to become the stage for contrasting civilizations—the one, of the most ancient simplicity; the other, of the modern ways of a great world-industry.

Which will be the happier? To that question there can be no confident answer. It involves too much that is unknown and unknowable both in the future course of human affairs, and in the true judgment of human values; and it belongs ultimately to the soul of the individual being, not to his manners nor his material environment. One can hope, without over-confidence but without despair, that this infiltration of modern industry and all that it must bring in its train will leave in Arabia whatever there has always been there of the Good and the Beautiful, and will be content to take from it only hunger and ignorance.

Sir HOWARD KELLY: I should like to ask the lecturer what Great Britain has got out of these oil-fields, most of which were started by her? I understand that we abandoned our rights, or part of our rights, over the Bahrain field and in the general distribution we seem to come poorly out of any recognition of our claims. Labour, I suppose, is becoming rather difficult. There is the question whether Indian labour is likely to be employed on a large scale, which has certain implications for the dim and distant future, such as we see in South Africa.

Brigadier LONGRIGG: The picture as regards Great Britain's share is simple. In Kuwait Great Britain has half. The Anglo-Iranian and the Gulf Oil Corporation have half each of the development of Kuwait; in the Kuwait Neutral Zone we have no share. In Sa'udi Arabia we have no share; in Qatar we have it all in the sense of a British Company, but not all in the sense of the shareholding of that company. Prospecting in South-Eastern Arabia is at present being carried out by a mixed company which is technically British; so that the British share is, on the whole, considerable, though not half.

There is already a good deal of Indian labour employed in Kuwait; about 1,000 to 2,000 Indians, and there are two or three hundred Indians in Qatar. In Sa'udi Arabia the al Hasa oil-fields have gone in for Italian labour; there were some 2,000 Italians recruited from Eritrea and I believe they are proving a success.

Colonel ROUTH: What is the future of the pipe-lines to Palestine? How many are there and how many are likely to get through?

The LECTURER: The California Company, disguised under the name of Trans-Arabia Pipeline, or TAP-line, plans one and has, in fact, begun to build it at the Saudi Arabian end. As soon as they can get steel *and* the permission to cross Syria they will start in and finish it. It will draw from the various Saudi fields. Which will be the starting-point of the pipe-line I cannot say; the fields are all fairly close together. The al Hasa line is only one, but there is also a projected line called Middle East Pipe-lines, partly British and partly American, which has not yet got so far in its plans or its wayleaves: it will serve Iran and Kuwait oil. There is also the Gulf Line from Kuwait. Thus there are not unlikely to be three, but the way is not clear for the construction of any of them.

Mr. BOURKE BORROWES: Have there been difficulties with labour?

The LECTURER: Nothing very important, but there have been a few difficulties: Labour is, in the first place, quite unorganized and, in the second place, very well treated—that is, as well as conditions allow. Such troubles as there have been, to the best of my knowledge, have not been very serious. There are stoppages of work for a day or two here and there.

Mr. BYRT: Is foreign labour likely to settle? Have the workers their families with them?

The LECTURER: Native workers have their families. Foreign workers are unlikely to settle in the area, though they sometimes have their families while working there.

Dr. G. M. LEES: Brigadier Longrigg gave an excellent historical review at the beginning of his address, but it might interest members to note that he omitted to say anything in regard to the first Trans-Arabian pipe-line. He has spoken of the "modern age," but the first pipe-line across Arabia was described by Herodotus. It so happens that when, for certain domestic reasons, Cambyses, King of Persia, conceived the idea of invading Egypt he was quite aware of the difficulties of taking an army across the desert, as we know also in our time. The question of water supply arose and, fortunately for him, the King of Arabia undertook a water contract which he carried out by constructing a pipe-line across Arabia, and it is said to have been built by-sewing fox-hides together.

Colonel ELPHINSTON: Does the progress of the Persian Gulf oil-fields increase our hope of a permanent basic petrol ration? With all that oil available there, what are the factors which are preventing us from getting into this country a larger supply of oil for which we have not to pay dollars?

The LECTURER: I can only reply to Colonel Elphinston that that is not within the subject of my lecture.

Dr. TRITTON: I have always understood that a good part of the revenue of Arabia came from the export of camels and that this was upset by the development of motor traffic. The lecturer stated that the export of camels was minute.

The LECTURER: I think I was right; it is not a very considerable source of revenue. After all, a few hundred Nejd camels, a number which would not be exceeded even in a good year, going northwards is not a very serious contribution to the welfare of 6 or 7,000,000 people. It is a small affair, perhaps rather picturesque but not economically very important. No doubt that export has been further diminished by the motor-car.

General WESTON: The answer as to the petrol ration is that all the assets that can be translated into dollars have to be sent to the United States of America in order to pay for dollar imports. In there, so that we are quite unlikely to get into this country any more oil from Iraq.

The CHAIRMAN: Brigadier Longrigg, I thank you on behalf of all of us for an interesting and instructive lecture. It has been most enlightening to hear some of the questions—especially that which carried us back to the time of Herodotus!

