

American Chamber of Commerce for the Levant.

G. BIE RAVNDAL, Constantinople *Honorary President*
W. L. LOWRIE, Athens *Honorary Vice President*
ELIOT GRINNELL MEARS, Washington, D. C. . *Honorary Vice President*
GEORGE H. HUNTINGTON, Constantinople. . *Honorary Vice President*

Board of Directors

MILLER JOBLIN	President
R. E. BERGERON	1st Vice President
LEWIS HECK	2nd Vice President
W. E. BRISTOL	Secretary
HARRY R. MANDIL	Treasurer
J. WESLEY CONN	Auditor
JULIAN E. GILLESPIE	Legal Adviser

A. G. ARSEN
EDWIN G. BOOTH
W. L. BLACKETT
J. WYLIE BROWN
A. T. CHESTER
JEAN CONSTANTINIDI
THEO. N. CURMUSI

LUTHER FOWLE
RUDOLF HIRZEL
ALDEN R. HOOVER
S. MITRANI
EDWIN SMITHSON
F. B. STEM

Commander G. BAKER, U. S. Port Officer

National Councillor

EDW. EWING PRATT 29 Broadway, New York

Executive Secretary

THERON J. DAMON

Yildiz Han, Galata, Constantinople

Directors at Large

P. M. MACDONALD, Cairo

EDWARD F. NICKOLEY, Beirut

JESSE B. JACKSON, Aleppo

J. E. ARCHBELL, Smyrna

LELAND B. MORRIS, Saloniki

GRAHAM H. KEMPER, Sofia

K. S. PATTON, Belgrade

ANTH. THEODORIDI, Braila

A. C. DANNER, Odessa

WILLIAM RANDOLPH VAN LIEW, Batum

Dr. GEORGE E. WHITE, Marsovan

LUCIEN IRVING THOMAS, New York

ALBERT W. STAUB, New York

DONALD FROTHINGHAM, New York

HAROLD HOSKINS, Boston

DUDLEY BARTLETT, Philadelphia

W. W. CUMBERLAND, Washington, D. C.



American Consular Officers.

ADEN, Arabia	{ HARRY M. LAKIN Consul. A. G. WATSON, Vice Consul.
AVLONA, Albania.	JOSEPH E. HAVEN, Consul.
BAGDAD, Mesopotamia . . .	{ THOMAS R. OWENS Consul. GEORGE J. FRASER, Vice Consul.
SOFIA, Bulgaria	{ G. H. KEMPER, Consul. HERBERT S. BURSLEY, Vice Consul.
LARNACA, Cyprus.	GEORGES WILSON, Consular Agent
NICOSIA, Cyprus.	FREEMAN S. MOON, Consular Agent.
ALEXANDRIA, Egypt.	{ LESTER MAYNARD, Consul. GEORGE L. BRANDT, Vice Consul.
PORT SAID, Egypt	WALTER A. FOOTE, Vice Consul.
CAIRO, Egypt	{ J. MORTON HOWELL, Diplomatic Agent and Consul General. RALPH H. BADER, Consul. BERNARD GOTLIEB, Vice Consul.
ATHENS, Greece	{ W. L. LOWRIE, Consul General. J. G. ERHARDT, Consul. WILLIAM P. GEORGE, Vice Consul. C. M. CORAFA, Vice Consul.
KALAMATIA, Greece	SOTIRIS CARAPATEAS, Consular Agent.
PATRAS, Greece	GEORGE K. STILES, Consul.
SALONIKI, Greece.	{ LELAND B. MORRIS Consul. Q. F. ROBERTS, Vice Consul. NELS E. ANDERSON, Vice Consul. JOHN W. HENDERSON, Vice Consul.
JERUSALEM, Palestine. . .	{ A. E. SOUTHARD, Consul GEORGE C. COBB, Vice Consul.
TEHERAN, Persia.	GORDON PADDOCK, Consul.
BUCHAREST, Roumania . . .	{ ELY E. PALMER, Consul. DONALD E. HEATH, Vice Consul. DONALD F. BIGELOW, Vice Consul JOHN SKELTON WILLIAMS, Jr., Vice Consul. BASIL E. SAVARD, Vice Consul.
BELGRADE, Yugo-Slavia. . .	{ K. S. PATTON, Consul. DON S. HAVEN, Vice Consul. HENRY R. BROWN, Vice Consul.
ALEPPO, Syria	{ JESSE B. JACKSON, Consul. THOMAS R. FLACK, Vice Consul.
BEIRUT, Syria	{ P. KNABENSHUE, Consul. FRED'K C. BIRD, Vice Consul. CHARLES I. GRAHAM, Vice Consul.
DAMASCUS, Syria	CHARLES E. ALLEN, Consul.
ALEXANDRETTA, Turkey. . .	J. PERISTIANY, Consular Agent.
CONSTANTINOPLE, Turkey.	{ G. BIE RAVNDAL, Consul General. OSCAR S. HEIZER, Consul. JOHN RANDOLPH, Consul. A. T. BURRI, Consul. GEORGE WADSWORTH, Vice Consul. J. H. KEELEY, Jr. Vice Consul. THOMAS J. MURPHY, Vice Consul.
SMYRNA	{ GEORGE HORTON, Consul General. A. W. TREAT, Vice Consul. MAYNARD B. BARNES, Vice Consul.

Levant Trade Review

PUBLISHED MONTHLY BY THE
American Chamber of Commerce for the Levant.
(INCORPORATED)

The American Section Addressed by President Thomas and Consul Maynard

At the dinner of the American Section of the *American Chamber of Commerce for the Levant* held in New York on December 20th, Mr. L. I. Thomas, president of the Section, and a Director of the Standard Oil Company of New York, gave a talk on his recent trip to the Near East. He said in part:

"I am sorry to note from the press such pessimistic statements as have been made by a prominent American who has also recently visited the Near East. There can be no doubt but that the political and economic situation leave much to be desired, but on the other hand I am glad to say that after talking with a great many Americans I have sensed a rather deep feeling of optimism for the future there, from a business point of view, and this notably applies to Turkey.

"At Constantinople there has been recently organized an American luncheon club. I was amazed to find when I attended one of their weekly sessions, which are held each Friday, that there were 76 representative Americans present. While it is true that a considerable number of these Americans were identified with larger institutions such as the Guaranty Trust Company, the American Express Company, the American Foreign Trade Corporation, the various tobacco companies, and the Standard Oil Company of New York, yet there were still a considerable number engaged in special lines of endeavor of an individual character.

"There is a very large quantity of gold coin in the hands of the people in Asia Minor and I have lately heard this estimated at

upwards of 50,000,000 Pounds Sterling. When conditions become more stabilized this gold will undoubtedly come out of the stocking-leg banks where it now reposes and will manifest itself in trade. This, together with the numerous articles which Turkey can produce for export should materially enhance the value of the currency, especially since the printing press has not been doing its deadly work as is the case in Eastern Europe or Russia.

"Speaking of Turkey's exports, which consist largely of tobacco, wool, dried fruits, mohair, licorice root, skins, chrome ore, carpets, rugs, etc., I understand that there is a movement in America to increase the duty on tobacco, the exports of which during 1920 were valued at approximately \$34,000,000. The present duty is, I understand, about 35 cents per pound, and if this were increased to \$1, as contemplated, I am apprehensive that it may have a most injurious, if not a paralyzing, effect on this important industry in Turkey. While not professing any special knowledge of tobacco business, I understand that the proposed legislation is being considered with a view to protecting a kind of tobacco which is at present being grown in California, which does not really compete and cannot be used for the same purpose as Turkish tobacco. I consider it the duty of this Chamber to do everything in its power to prevent the enactment of the legislation as being detrimental to the best interests of trade with Turkey, and, also with Greece.

"Notwithstanding the damage done by the Allied and German forces to the Rumanian oilfields, the crude production is now about 65% of the pre-war level, and since the various producing companies have come to an agreement with the Rumanian Government as regards the export tax, exports of the finished products are considerable. It is to be regretted that the fuel situation in Rumania is such that export of fuel oil is prohibited, as there is a large demand for this product in nearby countries. However the foreign exchange created by the movement of oil products and grain should have a wholesome effect on exchange.

"In conclusion I would like to remark that the peoples of the Near East have a very warm and friendly feeling for America and the American people. They realize that we have no desire for territorial aggrandizement and that our business relations are

AMERICAN CHAMBER OF COMMERCE FOR THE LEVANT

AMERICAN SECTION, Inc.

Offices : 29 Broadway, New York.

OFFICERS.

<i>Chairman of the Board</i>	J. M. DIXON
<i>President</i>	LUCIEN IRVING THOMAS
<i>Vice-President</i>	J. F. LUCEY
<i>Treasurer</i>	DONALD FROTHINGHAM
<i>Secretary and Managing Director</i> .	E. E. PRATT

EXECUTIVE COMMITTEE

LUCIEN IRVING THOMAS
 DONALD FROTHINGHAM
 CHESTER S. ALLEN
 NEAL D. BECKER
 PETER S. STEENSTRUP

BOARD OF DIRECTORS

CHESTER S. ALLEN, *Vice-President*, Lockwood, Greene & Company
 NEAL D. BECKER, *President*, Hammond Typewriter Company
 J. M. DIXON, *President*, Tobacco Products Corporation
 W. N. ENSTROM, *Irving National Bank*
 A. B. FARQUHAR, *President*, A. B. Farquhar Company
 DONALD FROTHINGHAM, *Manager*, American Express Company
 W. S. GAVAN, *Vice-President*, DuPont DeNemours Export Company
 ANTONY L. GEYELIN, *Geyelin & Company*
 C. H. HANEY, *International Harvester Company*
 A. H. HOLLIDAY, *Jones & Laughlin Steel Company*
 E. O. HORNER, *Manager*, Commercial Union of America, Inc.
 JOHN POWER HUTCHINS, *Representative*, American International Corporation
 E. H. HUXLEY, *President*, U. S. Rubber Export Company
 J. F. LUCEY, *President*, Lucey Manufacturing Corporation
 HARRY H. MERRICK, *Central Trust Company*
 SIGMUND METZ, *Asst. Vice-President*, Guaranty Trust Company of New York
 RALPH M. ODELL, *Manager*, Amory, Browne & Company
 E. E. PRATT, *Managing Director*
 PETER S. STEENSTRUP, *Vice-President*, General Motors Export Corporation
 L. I. THOMAS, *Director*, Standard Oil Company of New York.

devoid of politics. It is for this reason that I believe American business men have great opportunities in the Near East and that if the recent Limitation of Armaments Conference at Washington can be extended so as to discuss the economic problems we may look forward to happier and more prosperous times."

Mr. Lester Maynard, American Consul at Alexandria, also addressed the meeting. He was introduced as "the man who was perhaps more responsible than any other one person for the American victory in the Egyptian cotton-carrying controversy."

Mr. Maynard said that the arrangement recently made between the United States Shipping Board and the Liverpool liners under which American vessels receive one-half of the Egyptian cotton shipments would make it possible for the first time for American exporters to get a considerable share of the business with Egypt.

Referring to the previous unfavorable position of the United States Mr. Maynard said: "For the past twenty-five years Egyptian cotton has been carried exclusively in British vessels and as a result most of the long staple cotton which this country has been compelled to import from Egypt has been trans-shipped at Liverpool. This has deprived the United States of a shipping service between our ports and the important distributing port of Alexandria. Our export trade to Egypt was consequently of little importance. Before the war we ranked fifteenth in the list of sellers to Egypt. During the recent boom days, our merchant vessels called at Alexandria in great numbers but were compelled to purchase ballast to enable them to return to this country, in spite of the fact that large quantities of cotton were moving to Boston and New York. During the spring of 1920 unsuccessful efforts were made in London to have our vessels admitted into the Liverpool conference group. In 1921 we approached the matter direct by submitting bids in Egypt. The important point is that the United States Shipping Board has concluded an agreement with the Liverpool liners for an equal division of the traffic both direct and indirect, that is from Alexandria to American ports and from Liverpool to American ports."

“INTERCONTINENTALE”

Transport & Communication Co.

Formerly S. & W. Hoffmann

Head Office: TRIEST

Constantinople Branch-Office:

Galata, Place Karakeuy

Capital fully paid up: Italian Lire 8,000,000

BRANCH OFFICES at: Bourgas, Braila, Bucarest, Bratislava, Buchs St-Gallen, onstanza, Czernowitz, Fiume, Franzenfeste, Galatz, Genoa, Innsbruck, Leibnitz, London, Milan, Munich, Orsova, Oltenitza, Pontebba, Prag, Pressbourg, Roustchouk, Saloniki, Sofia, Sulina, Sniatyn-Zalucze, Szeged, Tarvisio, Temesvar, Varna, Vienna, Villaco.

Allied Firms: YUGO-SLAVIAN TRANSPORT & COMMUNICATION Co. at:
Agram, Belgrade, Semlin.

International Forwarding Agents.

Steamship Brokers and Agents.

Coal Importers and Bunkers Suppliers.

Insurance Brokers and Agents.

Advances on goods in store and afloat.

Cable address: INTERCONT.

Telephone: (Two lines) Pera 1294/5.

PHILADELPHIA 1926

In 1926 Philadelphia will hold a World's Fair in honor of the 150th anniversary of the independence of the United States, proclaimed at Philadelphia on July 4th 1776. It will be known as the Sesqui-Centennial Exposition.

Citizens of Philadelphia are now being asked to contribute a million dollars in \$10 memberships. The plan is to ask the City Council to equal that sum when it is raised, and then to ask the National Government to equal the total, thus providing an initial fund of four million dollars.

As the first step in raising the first million, the Exhibition Association has sent invitations to every civic, patriotic, fraternal and trades organization in Philadelphia and Pennsylvania to ask its members to join. The Association is regularly chartered by the Commonwealth of Pennsylvania for the purpose of conducting the Exposition. It is non-profit making. Membership in this organization imposes no personal liability other than the annual dues of ten dollars as long as one remains a member. No one doubts that one hundred thousand men and women can be found in Philadelphia and throughout Pennsylvania willing to contribute this amount to launch the Exposition.

To Americans the Exposition, although nominally in celebration of the 150th anniversary of independence, will represent something greater than the creation of a single Republic. It will signalize the successful ending of a World War that threatened civilization. And in this spirit it will be taken up by the rest of the world. Not only will it be the greatest exposition ever held but no effort will be spared to make it the most artistic, and the most significant of world commerce.

Various plans have been announced for the building of new skyscrapers in Philadelphia during recent years but construction has been delayed through high building costs and labor shortages. These conditions are now correcting themselves and with the Exposition to bring in thousands of workers and millions of dollars office and hotel sky scrapers will be started right away.

Concerning the Exposition Julius Kline, director of the United States Bureau of Foreign and Domestic Commerce, says:

"The evolution of our intelligence is toward the 'world mind'; our future traders will be better informed, the peoples of the earth will be brought closer together in commerce and the facilities incident to trade. The

Philadelphia Exposition will be different from its predecessors in that American interest in foreign trade will have matured to a far greater extent than ever before—the American mind will have become more international.

"That metamorphosis is even now under way. There is abundant evidence of it. It will be more emphatically in evidence in 1926. The American business man is beginning to realize that there is more than one port on his Nation's coastline, and our exporters and importers, financiers and railroad men, Federal administrators and legislators, are having impressed upon their consciousness that our foreign trade is limited too seriously by our port facilities. Development in this regard should be substantial within the next few years.

"Again the necessity of participation by the United States in European and Oriental affairs to an important degree is compelling our business men, as well as our diplomats, to think in the upper brackets of the multiplication table. Our newspapers are carrying more world news of commercial interests. Our universities are attentively providing their students with a background of international, social and commercial knowledge.

"The personnel of our export business has been fumigated. The 'war-babies' in export trade are about gone and our foreign commerce from this point forward should be more healthy and built upon a structure of oak rather than the mushroom type—a fact which is of the greatest importance in the matter of creating confidence in markets abroad.

"First and finally, there is our merchant marine. Our people are seemingly of one mind as to the necessity of maintaining a merchant fleet adequate to the Nation's import and export demands under the American flag. With such a spirit failure is unthinkable.

"It would be foolish to assert, or think, that five years hence the transformation of our national attitude toward foreign trade will have been complete. The progress of a people is not so rapid. And it is well so. But it is not too much to predict that by 1926 the evolution will have gone so far as to make the Sesqui-Centennial Exposition a national and an international asset, a thing to be supremely desired and a real advertisement of the advancement the world has undergone."

NOTICE

CABLES IN CODE.

CABLE MESSAGES IN BENTLE'S, SCOTT'S AND THE A. B. C. COMMERCIAL CODES CAN NOW BE TRANSMITTED FREELY AND WITHOUT RESTRICTION TO THE UNITED STATES BY WAY OF THE SYRA AND ATHENS STATIONS. THE PARTICULAR CODE USED SHOULD BE INDICATED ON THE FACE OF SUCH MESSAGES.

THE WORLD'S GREATEST WATER SUPPLY

by F. E. ACKERMAN

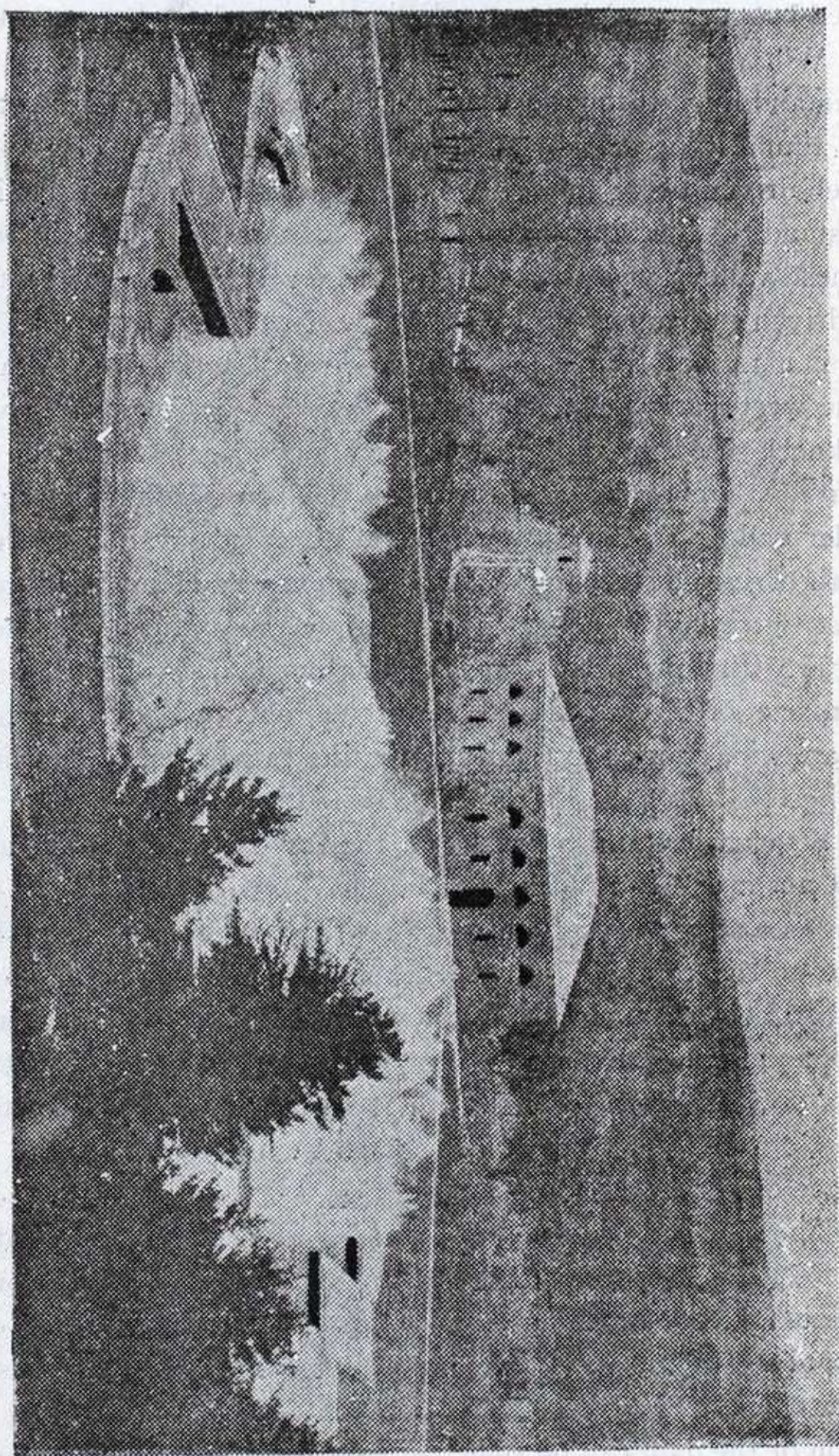
The water supply for New York City comes from the Catskill Mountains. This means that 500 million gallons of water daily must be brought for 125 miles through aqueducts and subterranean passages, including a 34 mile solid rock tunnel which wends its way from 200 to 450 feet beneath the surface of New York City itself.

The system was begun in 1905 after nine years of bitter discussion as to the best method of meeting the threatened water shortage. In 1917, the first phase of the project was completed and a group of engineers, journalists and others celebrated the occasion by walking through the aqueduct from its beginning in the mountains to the various outlets which mark the passage of the great water tunnel through the heart of the city. It took several days to make this trip, the party emerging from the aqueduct at various times to rest and to sleep.

The main reservoir known as the Ashokan necessitated forty miles of new highways around its edges; ten steel bridges, some of them having a total length of over 1,000 feet, were built. A railroad system which interfered with the reservoir was removed and rebuilt for a distance of eleven miles.

During the years in which the great project was under way, various small cities, with total populations exceeding five or six thousand each, were founded. These cities were equipped with all the modern conveniences and comforts of civilization. They had their own sewage and water supply systems, their own electric light plants, and telephone systems. Banks were established, hospitals provided, churches built and special fire and police protection afforded. When the great reservoir was finally opened, all vestiges of these temporary cities were removed.

From the great Ashokan reservoir the aqueduct leads in a southerly direction toward New York City. It varies in construction according to the topography of the country through which it passes. For a distance of 55 miles through the Catskill Mountains country and down through the highlands of the Hudson River, the aqueduct is of the "cut and cover type." This type of aqueduct consists of excavating a trench in the bottom of which a floor or



Ashokan Aeration and the beginning of the Ashokan Aqueduct.

invert of concrete is placed. The floor, side-walls and supporting arch are of concrete without steel enforcement. The concrete was poured between steel forms, producing a horseshoe-shaped aqueduct.

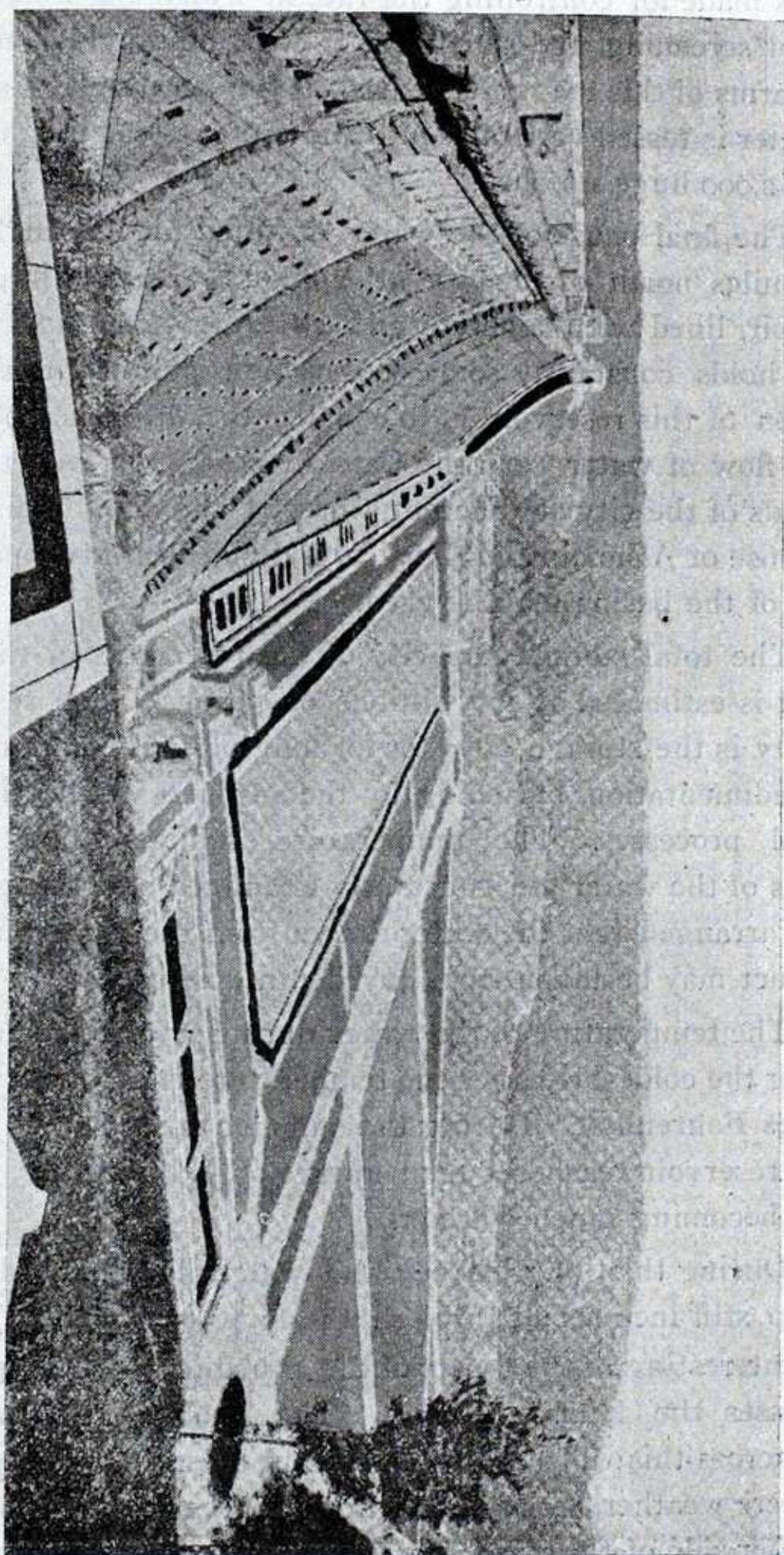
Where hills or mountains were encountered, tunnels were driven and lined throughout with concrete. In the valleys the pressure tunnel type of aqueduct was used, consisting of a circular tunnel driven deep enough below the valley bed so that it will withstand the bursting pressure of the water. The most important of these valleys was that of the Hudson River where the tunnel was driven in granitic rock at a depth of 1,114 feet below sea level. This is a 14-foot tunnel and extends from Storm King Mountain at the west bank of the river to the east bank of the river at Breakneck Mountain, a distance of 3,022 feet. Both of these mountains are peaks of the famous Hudson Highlands. Across smaller valleys or at places where rock was not available, pressure tunnels of riveted steel pipe encased in concrete and lined with cement mortar, were laid in a trench just below the natural surface and covered with a protective grass embankment of earth. The greatest in size of the aqueducts are of the "cut and cover type" and they are wide enough to permit two trains to pass each other in them with ease.

Seventy-five miles south of the Ashokan Reservoir and 35 miles north of New York City is the Kensico Reservoir, which serves as a storage reservoir so that the flow from the Ashokan source to the city will not be interrupted in the event of the aqueduct being at any time out of service. This reservoir has a capacity of 29 billion gallons of water and an area of water surface in excess of 2,218 acres. The entire strip has a marginal protective surface around its circumference which has been parked for a distance of 500 feet.

The Kensico Dam which makes the reservoir, is regarded as one of the greatest masonry structures in the world. It contains approximately one million cubic yards of masonry, a third of the amount used by the Egyptians in building the Gizeh pyramids. Its greatest height is 307 feet above its rock foundation. Only a small portion of the dam can be seen, as two-thirds of it is buried beneath the water and the surface of the ground.

The water from the Ashokan reservoir enters the Kensico reservoir at its upper end and is drawn through a system of gates

The Kensico Reservoir, 35 miles below the Ashokan Reservoir.



located in chambers about one mile north of the dam. Here provision is made for controlling the rate at which the water is drawn and for screening and sterilizing it with liquid chlorine. One of the charms of this magnificent park is the aeration basin in which the water is tossed vertically into the air at great heights through nearly 2,000 huge nozzles.

The final pause of the water destined for use in New York is 15 miles north of the city at Yonkers. Here a huge artificial reservoir, lined with concrete and covering a surface area of 90 acres, holds constantly some 900 million gallons of water. The function of this reservoir is to equalize the difference between the steady flow of water from the Catskill Mountains and the varying demands of the city at different times of the day. This aqueduct, like those of Ashokan and Kensico, is divided into two parts so that either of the basins may be used.

The total storage capacity of the reservoirs of the Askohan project is estimated at 177 billions of gallons. The result of this capacity is the storage of water for long periods before use, permitting sedimentation, bleaching by the sun and sterilization through natural processes. The temperature, sedimentation and other aspects of the water are constantly examined and the gate houses are so arranged that the water drawn from the reservoirs into the aqueduct may be taken from any depth desired.

The temperature of the water during winter is fairly regular. During the coldest weather the temperature is as low as thirty-three degrees Fahrenheit. During the summer the water at the bottom of the reservoir reaches a temperature of sixty degrees, the surface water becoming much warmer.

During this long journey the water flows into deep grades and up stiff inclines all through the force of gravity. One of the most interesting of the twists of the aqueduct is at the point where it crosses the Hudson River. The problem of carrying the shaft across this wide, deep river, swept by strong tides, and subject to severe weather, was a difficult one. Finally a tunnel was drilled on either side of the river at a sharp incline so that the two tunnels met in the center of the river at a depth of 1,500 feet below the surface of the water.

The American Hospital of Constantinople

The American Hospital of Constantinople, at 67 Tcharchi Capou, Ergat Bazar, Stamboul, has a capacity of about eighty beds. It is under the direction of Dr. A. R. Hoover, and the Superintendent is Miss Lyda W. Anderson. The Assistant Superintendent and three other nurses are thoroughly qualified Americans.

The hospital is operated in the most modern and efficient American manner and is for the general good and benefit of the community without prejudice or partiality. It is not a charitable institution.

The hospital was opened for out-patients in May, 1920. It was equipped and opened for in-patients and all work of a hospital in August of the same year. A standard Nurses Training School was opened in October, 1921, under the auspices of the Constantinople Chapter of the American Red Cross, which has assigned to the hospital the operation of this school.

The Constantinople Chapter of the American Red Cross has paid the rent for the building for three years from May 1920. The hospital was largely equipped by the American Red Cross and the Near East Relief. Constantinople Woman's College contributes substantially to the support in return for facilities given by the hospital for practical education in connection with the medical course established at the College. A benefactor of New York has recently given money for a maternity ward.

A number of American business firms in Constantinople have contributed to the maintenance and operation of the hospital. Further subscriptions are desired in order to improve and develop the institution. Checks may be sent to Mr. O. V. Claiborne, Guaranty Trust Company, Yildiz Han, Galata, Constantinople.

The Advisory Committee of the Hospital is composed of the following: Miss Anderson, Dr. Hoover, Admiral Mark L. Bristol, Major C. Claflin Davis of the American Red Cross, Dr. W. W. Peet of the American Board; Dr. Mary Mills Patrick, President of Constantinople Woman's College; Mr. C. H. Jaquith, Director of the Near East Relief; Mrs. George H. Huntington. The Executive Committee consists of Messrs. W. L. Blackett, R. E. Lee, F. B. Stem and O. V. Claiborne.

The Steel Barrel Industry

Hardly more than a dozen years have passed since the first steel barrels or drums were made, yet today there are 30 American concerns manufacturing this style of shipping container. Their annual capacity runs up into the millions.

The problem of finding the right sort of container, especially for liquids, was one which faced the shipper many years ago. The old shipping containers which did not meet the requirements of the shippers were used simply because there was nothing better.

All sorts of liquids, pastes, semi-pastes and powders were shipped in metal, but the containers were generally small household packages, and were usually made of tin plate. It was obvious, from the thinness of the metal, that they could not carry commodities of large bulk or in heavy gallonage, as the very weight would bend, distort or break the packages. And yet the compactness of the package, its guarantee of safe arrival and the ease with which the metal lent itself to bending to desired shapes and sizes commended the metal container to both the shipper and the consumer. It may seem like a simple matter today to take a sheet of steel, roll it into a cylindrical shape, put heads in it, make openings and turn the product out as a finished barrel. But endless experimentation was carried on and errors were corrected and eliminated before the steel barrel of today was an actuality. While the first steel barrels look like the steel barrels that are being offered today, the actual differences are many and important.

In the short period in which the industry has existed, thousands of dollars have been spent in experiments and millions in planning, devising and creating the intricate machinery required in a modern steel barrel plant.

The steel barrel industry has been one of constant growth. In 1920 more than 2,500,000 steel barrels were made.

The steel barrel played no small part in the World War. For the shipment of petroleum products it was very largely used. It carried gases of various sorts for the army. Its property of being usable over and over again made it especially valuable in carrying liquid products up to or near the front. One use to which it was put which was not contemplated by its manufacturers was as a basis for many of the pontoon bridges which the engineers had to construct hurriedly for the passage of troops or supplies.

The steel barrel has probably the greatest salvage value of all containers. Being almost indestructible, it can be used for years, after its original contents have been removed. Farmers use these barrels for carrying water, for small storage tanks and for drinking-containers for stock. They are also greatly valued in the making of home-made stoves. The salvage value of a steel barrel is often as great as its original value.

The first steel barrels were riveted and did not prove satisfactory, as frequently they were not leakproof. Many of the old barrels were soldered, but this also was not always satisfactory. Today most of the barrels are welded, the acetylene gas process being used. Steel barrels are not made only for liquids. They are also made for materials in practically all physical conditions—for paste, semi-paste, crystals and powders. Barrels for commodities other than liquids are made with removable heads. These heads are attached in various ways and can be made air-tight.

Cleveland, Ohio, takes the lead in the steel barrel industry and is planning great additions to her present plants.

Standard Oil Company of New York

Department of the Levant

Constantinople

Constantinople

Alexandretta

Smyrna

Mersina

Piraeus

Tripoli

Salonica

Sophia

Belgrade

Bourgass



The Mark of Quality

Socony Products

Illuminating Oils

Lubricating Oils

Benzine and Motor Spirits

Gas and Diesel Oils

Fuel Oil

Road Oils and Material for Road Building

Paraffine Wax and Candles

Lamps, Stoves and Heaters

Uncle Sam as Exporter

By CHARLES LYON CHANDLER
*Foreign Trade Manager, Corn
Exchange National Bank
of Philadelphia*

It has so long been the fashion to denounce and decry the mistakes of our exporters and foreign traders that sometimes we fail to give due credit to those who succeed against the heavy obstacles. This lack of appreciation is shown not so much to the men of our own day, who can speak for themselves, as to the pioneers of the past, who are so far forgotten that it is frequently stated that the United States has just entered the field of foreign trade.

Perhaps it may surprise those who make these statements of our recent discovery of South American trade opportunities, to know that citizens of the United States were doing business in Montevideo as far back as 1799, and in Buenos Aires at least as early as 1802. Our exports of furniture to Argentina began in 1801 and a "carriage of North American make" was rolling along the streets of Buenos Aires in 1810; and ever since 1806 the United States colony there has celebrated the Fourth of July by a public dinner. United States citizens were active in Chile as early as 1808, and by 1810 there were enough of them in Rio de Janeiro for two of the "estimable young people" to be married.

But our pioneering was not confined in any way to South America. Fifty-three years before Perry, a ship from Salem went to Japan. By 1801 the American citizens in Manila were so numerous as actually to give parties and "genteel entertainments." Even while George Washington was president, Lewis Lilliebridge, of Rhode Island, was conquering whole provinces in India for England. Poor

Lewis, alas! succumbed to the flowing bowl at an entertainment given in his honor by the United States Colony of Calcutta before his departure in 1804, so that he never saw Narrangansett Bay again. Moreover, to the Cape of Good Hope while she still belonged to Holland, to Mauritius still under the French, to Norway still a part of Denmark, ships and traders were sailing from the United States. In fact we were so familiar with this part of the world that in 1813 Bergen was used by our navy as a kind of base against the British Isles.

Fifteen vessels flew the Stars and Stripes into Archangel in the summer of 1810, while sly old William Waln of Philadelphia also circumvented Napoleon's blockade at Smyrna, as did Stephen Girard at Constantinople.

In many cases, the trading has been handed down in the same family from generation to generation, as with the Offleys and Blacklers in Smyrna, or the Zimmermanns and Fraziers and Perrys in Buenos Aires and the Uptons in Brazil. They and many, many others can look back with pride to the days when their ships carried their sailing papers signed by Jefferson, Madison or Monroe, and when sixty-four days instead of sixteen were needed to bring their hides and wool from Argentina to New York. Fortunately, some of our largest manufacturing firms have preserved their records sufficiently for us to trace the growth and development of their foreign trade.

Probably no line of foreign business has keener competition than the locomotive trade, yet as early as 1839 Matthias W. Baldwin himself was selling locomotives to Wurttemberg, and to other European railways shortly afterward. Matthias was a fairly good export manager, even if he never read

NATIONAL BANK OF TURKEY

(Affiliated to the British Trade Corporation, Capital Lstg. 10,000,000.)

Established 1909 by Imperial Firman.

Capital £ 1,000,000

BOARD OF DIRECTORS:

CONSTANTINOPLE.

S. de Bilinski, C. B. E. (Chairman)
 Sir Adam Block, K. C. M. G.
 F. Edwin Whittall C. B. E.
 H. E. Djemal Bey

LONDON.

A. G. M. Dickson, (Chairman of
 London Committee)
 Sir Henry Birchenough, K.C.M.G
 C. S. Gulbenkian
 R. H. Macaulay
 E. N. Meyer

Head Office **CONSTANTINOPLE, GALATA, (Rue Voivoda)**

Branches **CONSTANTINOPLE, STAMBOUL, Kenadjian Han
 SMYRNA, Rue des Quais**

Agencies **CONSTANTINOPLE, PERA, (Rue Cabristan)
 PANDERMA**

London Office **50 Cornhill, E. C. 3**

Transit Warehouse
STAMBOUL

Bonded Warehouse
STAMBOUL, Tutun Gumruk.

At the **PERA AGENCY** a complete installation of small safes is at the disposal of clients on favourable terms.

The Bank has Agents in all the principal cities of Europe, America, and the Far East, and has correspondents throughout the world.

Every description of Banking Business, in all its Financial and Commercial Branches, undertaken.

Business Houses trading with Turkey can insure Foreign Exchange with the Bank. Banks, Commercial Houses and others having interests in Turkey are invited to apply for terms.

Manufacturers and Merchants may address enquiries to the Head Office for Trade Lists of Importers and Exporters.

Unit-4-II-44 nor studied text-books on foreign trade. Of course it is a great pity that he could not have enjoyed the advantage of a degree in some of the post-graduate courses where export information is dealt out with so lavish a hand; but in spite of these handicaps, at his death in 1866 Baldwin locomotives were running in practically every railroaded country of the world.

In 1851 they helped to open the first railroad ever built in South America, from Caldera to Copiapo, in Chile. The machine tools used on this railroad were made by Messrs. William Sellers & Company, of Philadelphia, who, in the autumn of 1861, even sold tools to the Spanish Army. In 1865, Mr. Baldwin sold a locomotive to a sugar plantation in Cuba. Exactly fifty years later, in 1915, a letter came to the Baldwin Locomotive Works addressed to "Señor M. W. Baldwin" from the firm of plantation managers saying that the 1865 order was still in use and so satisfactory that herewith was a repeat order.

I myself have seen the very printing press sent by the elder Robert Hoe to Buenos Aires in 1861. The ship that took it out was chased by Confederate privateers until, for fear of capture, it put the cargo ashore somewhere in Uruguay, and the press was dragged on ox-carts to its final destination. In 1912, while I was in Peru, I saw a lathe from Pennsylvania that had been in continuous service on a sugar plantation there since 1870. We have all heard of the unfortunate locomotive which was abandoned in 1879 on the Madeira-Mamoré Railway in the Amazon jungles. When it was found in 1908, palm trees were growing out through the smokestack. But after the fruit had been picked from the palm trees, the old locomotive was thoroughly cleaned out, and today it runs all the better for its vaca-

tion and is a valuable asset on that tropical railroad which is itself a monument to our enterprise abroad.

Indeed, many of our foreign triumphs have come in engineering lines, for even while Spain was at war with us in 1898, she continued to order Baldwin locomotives.

It should always be remembered that some of our greatest successes abroad as well as at home are so-called "Yankee inventions." It was hard enough to educate the people of the United States to use some of these inventions that are now in every home, but it was naturally twice as hard to sell them to peoples who not merely spoke no English but who in many cases followed an entirely different mode of daily life from that in the United States,

For instance, the baby carriage is now common enough here, but when the first baby carriages were brought to Japan the cry was that they would drive out of employment the poor nurse-girls who for untold generations had carried babies on their backs. When Frederic Archer Upton introduced the Uncle Sam stove into Sao Paulo, Brazil, in 1875, many of the older houses there had to be partly torn down in order to put the stove in the kitchen. In a certain country east of Suez, I have seen small safes used as parlor ornaments, with the floor strenghtened from its original bamboo-and lath thickness to hold them.

The story of our foreign trade is told by the old cemeteries in foreign lands. American graves at Panang in the Straits Settlements show dates as early as 1846, and some of those on the South Orkneys, down near the South Pole, go back to 1821. But today we are striving by better sanitation to defeat the purposes of these old cemeteries. About five years ago several officials of a South American

WASHBURN-CROSBY COMPANY

17 Battery Place—NEW YORK

The Largest Millers in the World

Mills at Minneapolis & Buffalo

Daily Capacity — 50,000 barrels

Manufacturers of the universally known

GOLD MEDAL FLOUR



QUALITY

ECONOMY

Grades :

GOLD MEDAL

Citation

Iron Duke

Vulcan

Arlington

Whitehall Flour

King Wheat Flour

Durum Straight Flour

Durum Clear

Semolinas

etc., etc., etc.

Uniformity in grades and service GUARANTEED

Exclusive Agents at Constantinople

J. B. LAMBRINIDES & Co.

No. 20, Omer Abid Han, 1st floor

Galata, **CONSTANTINOPLE**

Telephone Pera 1764.

government were in earnest conference with a young man from Tennessee. They were ready to award to the United States the first contract ever given by that sister republic for the sanitation of one of its largest cities if we could deliver the goods. In the past such work for South America had invariably been done by Europeans, who had built standpipes of heavy concrete in the manner of the ancient Romans.

"But we can build, Your Excellency, pipes in Chattanooga of steel sheets that will cost one-half as much," said the Tennessean.

"But Chattanooga is inland."

"But we can nest them on Southern Railway freight trains and take them to Mobile or Charleston, whence they can go by steamer to Paysandu or Mercedes direct, Your Excellency. These steel pipes will last just as long, and, incidentally, will save Your Excellency about \$50,000."

The officials were finally convinced, and today many such standpipes in Uruguay have Chattanooga stamped on them as a permanent reminder of this young man's visit. He did not send a catalog printed in English or a short paid letter when he wanted to secure this Uruguayan business. Instead, he jumped on a boat and went directly to Montevideo, and today that Chattanooga factory's, products are covering the world from Pernambuco to Penang, and their salesmen are even more active abroad when business is dull at home.

In the same way a shrewd young man from Atlanta, Georgia, who had worked in numerous Southern cotton mills, saw the chances the World War opened to us. He went to Buenos Aires in 1914 and sold the first United States towels and tickings in Argentina. He is still there, with a good clientele, for his mills have actually delivered when they said they would.

A. B. Farquhar, for many years a vice-president of the Chamber of Commerce of the United States of America, tells the following graphic story of the pioneer shipment of plows to South America—a shipment of his which has developed into a nation-wide business of millions of dollars:

"Our first export shipment, as I recollect it, was in 1868, through A. B. Morton & Son, on a sailing vessel, to Paysandu, Uruguay, the shipment consisting of plows. This shipment was followed with a number more, and finally permanent connections were made, some of them direct with South American houses, though most of the goods were sold through commission agents in New York. By 1873 our export business had begun to take a very considerable portion of our product, and thus it was that in times of depression at home the export demand usually kept our factory going, and we were often enabled to keep running when other plants in my home town (York, Pennsylvania) were idle. In fact, we had a record for practically never shutting down, largely the result of export orders when domestic was slack.

"Of course these early attempts to break into the export field were not unattended with difficulties. In one instance we had, by dint of the hardest kind of hustling, got a car-load order completed, all except some fifty or sixty plowshares which, through an error, had been delayed in the foundry. But one day remained before the sailing of the vessel from Baltimore, which was scheduled to weigh anchor early next morning.

"I had the heat run a little earlier than usual that day, poured the shares with the first iron, milled them, and after six that evening, with the help of two of my men, personally packed

Corn Products Refining Co.

NEW YORK, U. S. A.

FABRICANTS DES PRODUITS DE MAÏS :

GLUCOSE, Marques "GLOBE" et "BUFFALO" =====

AMIDON POUDRE et PERLE, Marque "GLOBE" =====

AMIDON pour Blanchissage, Marques "PREMIER", "EXCELLO", etc.

SUCRES, Marques "CLIMAX", "NABOB", "BUFFALO" =====

DEXTRINE (Colle-forte en poudre), Marque "GLOBE" =====

HUILE MANGEABLE, Marques "ARGO" et "MAZOLA" =====

CORN FLOUR, Marques "MAIZENA" et "HARVEST QUEEN" =====

SIROP DOUX, Marque "KARO" =====

AGENTS GÉNÉRAUX POUR LE PROCHE-ORIENT :

J. W. WHITTALL & Co., Ltd.

CORN PRODUCTS REFINING CO. DEPARTMENT

SANASSAR HAN - STAMBOUL

CONSTANTINOPLE.

them and took them to the car. The freight agent was hunted up, the emergency explained. He at once caught the spirit of the matter and remarked reflectively 'The fast freight goes down at eight o'clock; I will get that car through.' I took the early train, before four o'clock the next morning, found the car had reached the Jackson Street Wharf and been loaded on the vessel. This is but one of a number of instances in which extreme measures had to be taken to avoid disappointment of foreign customers."

Even these few scattered bits of data are enough, I think, to enable us to refute the charges of some of our competitors who seem to regard us as a pack of children turned loose in a toy shop with all of Uncle's money to spend. If we follow the energy and sense of some of our forebears, we shall find them surprisingly modern, as good as a textbook on foreign trade of today. We now "sail" and "ship" by steamers, but Yankee shrewdness and Yankee inventiveness are the same as they were in Franklin's day.

"If I should never venter nothing, I should never have nothing," wrote Obadiah Brown in 1738 to his brother James, regarding the voyage of his Providence-built vessel, the *Rainbow*, to Surinam in that year.

The Nation's Business.

On November 11, the Steamer "Gul-Baghtcheh," belonging to the Anglo-French Navigation Co., foundered within the port of Smyrna, 15 metres from the break-water and the light house which stands at starboard of ships entering the port. The Anglo-French Company has been asked to place a buoy at the extremity of the foundered vessel farthest from the break-water.

Les Magasins Piggly Wiggly

Tous les étrangers qui ont fait un séjour quelconque aux Etats-Unis connaissent les bazars Woolworth, les pharmacies Liggett, et tant d'autres établissements issus de la puissance d'expansion formidable des entreprises commerciales américaines. Ils savent que les Américains appliquent à ces magasins, que l'on rencontre littéralement à tous les coins de rue, la désignation pittoresque de «chain stores» — à interpréter non pas comme magasins de chaînes, mais comme magasins en chaîne ou chaîne de magasins.

Chacun d'eux, en effet, est comparable à l'un des maillons d'une énorme chaîne qui enserré les villes et les villages de ses nombreux replis, chaîne à laquelle on ajoute sans cesse de nouveaux anneaux, qui s'allonge continuellement, qui s'étend d'une localité à l'autre, de région en région, chaîne destinée à former finalement un réseau serré sur toute la superficie du pays, des Grands Lacs au Golfe du Mexique, de l'Atlantique au Pacifique, même à franchir les mers et à paraître dans toutes les dépendances insulaires des Etats-Unis et même en certains pays étrangers.

Tous les «chain stores» d'une même compagnie ont une devanture indénique et distinctive, un aménagement intérieur invariablement semblable et un stock de marchandises absolument pareil. Leur aspect extérieur, éminemment caractéristique, les fait immédiatement reconnaître de jour ou de nuit.

Le système des «chain stores» a été un si grand succès qu'il est désormais définitivement établi en Amérique. Or, à l'idée première qui a fait la fortune des Woolworth et autres, il est venu récemment se greffer celle du magasin sans commis, où le client se sert lui-même et on démontre la vérité du

SARANTIS FRÈRES

(ESTABLISHED 1902)

**Commission Merchants
Government Contractors
Shipping & Insurance Agents**

IMPORTERS of: Grain, Flour, Oleo Oil, Cotton Seed Oil, Rice, Sugar, Grey three yd. Sheeting & Drill, Leather and Rubber Goods, Agricultural Implements, Alcohol, Chemicals, Edible Oils, etc.

EXPORTERS of: Greek & Turkish Tobacco, Opium, Wool, Mohair, Gum Tragacanth, Valonea, Minerals, Dried Fruits, Currants, Olives, Olive Oil.

SOLE AGENTS

**IN THE MARKETS OF GREECE & TURKEY
FOR THE WORLD RENOWNED BRANDS:**

FLOUR: "Nelson", "Martisco", "Winnipeg", "Oak",
"Ambia", "Simcoe", "Ferndale", "Pilot",
"Elba", "Hickory".

GREY THREE YD SHEETINGS & DRILLS:
Amory, Browne & Co., "Ramopa CCC"

OLEO OIL: "Calumet", "Hesper".

MUTTON OIL: "Amazon".

SHOES: Charles Eaton.

OFFICES:

PIRÆUS,
Spyraki Building
CONS/PLE:
Abid Han, Galata.
Bassiret Han, Stamboul.
NEW YORK:
2 Rector Street.

AGENTS:

SMYRNA.
SALONICA.
PATRAS.
CHIOS.
AIVALI.
BUCAREST.

Tel. Pera 1827 — Stamboul 1522.

dicton «On n'est jamais si bien servi que par soi-même.»

Le sens de ce qui est pratique, de tout ce qui tend à augmenter le chiffre d'affaires du commerçant tout en réduisant au possible le montant de ses frais généraux, stimule continuellement l'esprit inventif des Américains, et crée sans cesse, aux Etats-Unis, des innovations d'une hardiesse extrême.

L'ingéniosité des commerçants s'exerce surtout, bien entendu, sur la classe moyenne et la classe ouvrière, sur les personnes qui font leur marché elles-mêmes, qui doivent regarder plus ou moins à la dépense, qui ne disposent que de moments de loisir d'une durée très limitée, et qui ne craignent pas de porter des paquets. Ceci revient à dire que c'est la masse du peuple qui fait le succès vraiment extraordinaire des bazars modernes et des établissements à distributeurs automatiques.

Certains commerçants avisés ont renouvelé le vieux système du bazar, de la vente à l'étalage, en le perfectionnant au suprême degré. Ils l'ont appliqué, pour commencer, à l'épicerie, à la charcuterie et même à la boucherie, et les résultats merveilleux qu'ils en ont obtenus sont bien de nature à les encourager à développer encore une entreprise aussi rémunérative.

Les deux exemples suivants suffiront à en donner une idée au lecteur. A Rochester, ville de près de 300.000 habitants, un certain chef de maison, ayant, par mesure d'économie, réorganisé son rayon d'épicerie de manière à pouvoir en réduire le personnel à deux employés, un contrôleur et un caissier, a vu le chiffre d'affaires de ce rayon s'élever en un an à près d'un demi million de dollars, égalant ainsi environ la moitié du total des ventes du magasin entier.

Par rapport au chiffre de la population de Manchester, ville de moins de 20.000 habitants, le résultat de l'essai identique que l'on y fit est encore plus

étonnant. Quand on songe que le rayon des produits alimentaires du magasin qui l'entreprit dans cette localité relativement petite est sujet à la concurrence de cinquante-huit marchés, il est véritablement incroyable que le total de ses ventes se soit élevé en un an à près de \$400.000.

L'aménagement du rayon des produits alimentaires de ce magasin de Manchester est d'une grande simplicité. Le pourtour de la salle est garni de casiers alignés en sections de six pieds de largeur et de sept pieds de hauteur. Chacune de ces sections est divisée en deux compartiments numérotés. Les marchandises rangées dans ces casiers sont énumérées dans un petit catalogue qui port les numéros qui correspondent à ceux des divers compartiments. A l'aide de ce guide, le client trouve ce qu'il désire sans la moindre difficulté.

On entre et on sort de la salle par des tourniquets. En entrant, on se munit d'un des paniers que l'on trouve rangés sur un comptoir voisin, et l'on s'en va faire ses provisions. A la sortie, un contrôleur vérifie vos emplettes, en fait un paquet qu'il vous remet, vous établit rapidement votre facture à l'aide d'une machine à additionner, et vous en payez le montant au caissier.

Une entreprise du même genre a pris naissance, il y a un peu plus de cinq ans, dans une région plus éloignée des côtes de l'Atlantique. Elle a merveilleusement réussi et promet de gagner successivement toutes les localités du pays. A l'heure actuelle, son importance est telle qu'il convient d'en rendre compte avec assez de détails.

Combinant avec habileté le système décrit ci-dessus à celui des «chain stores» et appliquant ces méthodes à la vente exclusive des produits alimentaires, un nommé Clarence Saunders s'avisa, en septembre 1916, d'ouvrir le premier de ses magasins, sous la désignation bizarre de Piggly Wiggly, à Memphis, dans l'Etat du Tennessee.

EVERYTHING FROM AMERICA

American Foreign Trade Corporation

— — — — —

GENERAL OFFICES :

Mahmoudie Han, Stamboul,
Telephone Nos Stamboul 2768, 2769, 2770.

Automobile & Machinery Department,
American Garage — Pangalti,
Telephone Pera 2763.

IMPORT-EXPORT

Agricultural Implements & Hardware,
■ ■ Textiles & Clothing, ■ ■
Staple Food Products & Provisions,
■ ■ Manufactured Goods. ■ ■

Exclusive Agencies for Turkey for
Highest Class American Automobiles

FORD — FORDSON TRACTOR

BUICK — OLDSMOBILE

GMC TRUCK — CADILLAC.

Cable address : AMOTTO CONSTANTINOPLE.

Le germe de cette entreprise a été si prolifique que l'on compte aujourd'hui 540 magasins semblables, qui font chacun, en moyenne, une chiffre d'affaires d'environ \$120,000 par an.

On rencontre maintenant les magasins Piggly Wiggly un peu partout aux Etats-Unis, mais principalement dans les régions du Sud et du Centre du pays. En un laps de temps remarquablement court, inférieur, en somme, à six années, l'entreprise Saunders s'est classée parmi les cinq systèmes de «chain stores» les plus grands des Etats-Unis.

On ne saurait encore prévoir à quel point elle est capable de se développer. A en juger d'après ses débuts, d'après sa croissance excessivement rapide, le système Piggly Wiggly, qui plait incontestablement au public par son originalité et ses prix très modérés, est destiné à prendre des proportions énormes. Une centaine de nouveaux magasins, d'ailleurs, déjà loués à cet effet, viendront s'ajouter aux autres.

D'où provient et que signifie ce nom singulier de Piggly Wiggly ? C'est bien simple : il est tiré d'un conte populaire de l'enfance américaine, de l'histoire du petit goret qui s'en va faire son marché, et qui en revient chargé d'une quantité extraordinaire de provisions, gâteaux et sucreries, dont l'énumération fait la joie des bambins. On l'a choisi en raison même de sa singularité et de son à-propos, parce qu'il est familier, expressif, facile à retenir et difficile à contrefaire.

Quiconque desire ouvrir un magasin Piggly Wiggly est libre de le faire, après en avoir obtenu l'autorisation de la compagnie fondatrice, et à condition de se conformer aux règles générales établies relativement aux dimensions du local, à sa décoration invariablement bleue et blanche, à son aménagement intérieur exactement défini, et à la conduite des affaires selon les principes spécifiés, c'est-à-dire ceux qui servent

de base même à l'entreprise. Tout concessionnaire est simplement tenu à verser un tant pour cent de ses bénéfices à la compagnie mère.

Le magasin type a environ huit mètres de largeur sur vingt-quatre mètres de profondeur. Dans le sens de la longueur, il est divisé en allées bordées de casiers contenant les marchandises, en boîtes, en paquets, en sacs, etc., dûment libellées et disposées dans un ordre parfait. Sur le devant du magasin se trouve la caisse, flanquée des tourniquets d'entrée et de sortie. Le local est clair, bien aéré, constamment tenu dans un état de propreté irréprochable. Rien n'y traîne ; on n'y trouve aucune paperasse, aucun déchet, pas d'affiches défraîchies et maculées, pas de pancartes jaunies. Les marchandises y sont à l'abri de toute poussière ; les viandes, le lait, le beurre, les œufs, les fromages, bref, tout ce qui être tenu au frais y est enfermé dans des garde-manger à portes vitrées à système de réfrigération. Tout y brille, tout y est net et attrayant—et bon marché, quoique de premier choix. Il va sans dire que ces deux dernières qualités résultent de l'achat en masse et du volume énorme des ventes.

Les magasins Piggly Wiggly, sont admirablement achalandés. Dès leur ouverture, invariablement annoncé, bien entendu, à grand renfort de publicité, ils acquièrent une clientèle nombreuse et fidèle, attirée d'abord par la curiosité, et retenue ensuite par l'excellence des produits mis en vente et par les avantages incontestables d'un système qui élimine les boniments de commis obstinément acharnés à faire l'article, qui évite les discussions, les complications administratives routinières, en somme, tous les agacements et toutes les pertes de temps.

Le Piggly Wiggly ne fait crédit à personne et n'effectue aucune livraison ; sa vente se fait strictement au comptant ; chaque acheteur emporte lui-

The Oriental Carpet Manufacturers, Ltd.

CAPITAL £1.250.000 STERLING

Telegrams "TEZIAK"

Head Office: S M Y R N A

BRANCHES OFFICES:

LONDON, 8 & 9 Giltspur Street, Holborn.

PARIS, 5 Rue Gretry.

BUENOS AIRES.

NEW YORK, Mohawk Bldg, 160 Fifth Avenue.

CONSTANTINOPLE, Midhat Pasha Han., Sirkedji.

Manufacturers of all kinds of **ORIENTAL CARPETS**
& **RUGS**, possessing factories and looms all over
ASIA MINOR, PERSIA & INDIA.

même ses emplettes : donc, pas de garçons livreurs, pas de service de comptabilité et de contentieux, pas de garçons encaisseurs. Appliqué méthodiquement avec le soin le plus rigoureux, le principe de la réduction à l'extrême des frais de tous genres accomplit de vrais miracles. On a vu ceci, par exemple : à Memphis, un magasin d'épicerie ordinaire qui avait fait en six mois un chiffre de ventes de \$34.000 environ, moyennant une dépense en frais divers de \$5.200, fit au cours du semestre suivant, à la suite de la mise en pratique du système Piggly Wiggly, un chiffre de ventes de \$114,000 en ne dépensant que \$3.400, ce qui correspond à des affaires plus que triplées et à une réduction de frais de 30 pour cent.

A Memphis, sa ville d'origine, la chaîne Piggly Wiggly est actuellement composée de trent-cinq maillons. La plupart des grandes épicerie du Tennessee, d'ailleurs, ont fusionné avec les établissements Saunders, leurs chefs y trouvant tout profit, après avoir reconnu la futilité de tout effort de concurrence.

Les magasins Piggly Wiggly se sont aussi multipliés à Chicago, où l'on en compte déjà 66, à St. Louis, à Washington, et dans une centaine d'autres villes américaines.

L'Exportateur Américain.

How important a part bread played in the Egyptian cuisine, and how necessary the bakers must have been to great enterprises is suggested by an inscription of the Eleventh Dynasty. It runs in part as follows: "I went forth with an army of 3,000 men, I made the road a river, and the red desert a field by giving two jars of water and 20 small loaves to each one every day." For a month's expedition, this would have required about 1,800,000 loaves.

The American Date Industry

by Dr. JOHN HARVEY KELLOGG

The first bearing date trees were brought to the United States more than thirty years ago by the Secretary of Agriculture, "Uncle Jerry Rusk". The trees were planted in Fresno, California, but did not bear. After several removals, some of the trees finally reached Coachella Valley, not far from Palm Canyon, in southern California where the original American dates were found growing.

And here, within two years of its last transplantation, the "Wandering Jew," as one of the original palms was called, because of its peregrinations, began to bear the same delicious fruit which it had formerly produced in northern Africa. This palm is still bearing and is now a stately tree more than twenty feet in height.

Attention was called to the suitability of the Coachella Valley for date culture by the discovery of the group of palms in Palm Canyon, and a closer study of the soil and the climate of this region, the northern part of the Colorado desert, showed it to be even better suited, if possible, to date culture than most of the regions in which the date is grown in the Old World. The desert region of which the Salton Sea is the center, is in its lowest part more than two hundred and fifty feet below sea level and one of the most hardy spots on the face of the earth. Sometimes not a drop of rain falls for a year and a half or more, and the average annual rainfall is but two or three inches. Over the greater part of a considerable area, only sage brush and a few other desert plants are found growing. Notwithstanding the exceeding dryness of the soil at the surface, underneath, at a depth of four or five hundred feet, water per-

J. W. WHITTALL & Co., LTD.

Sanasar Han, Stamboul, Constantinople.

Telegraphic Address—"WHITTALL, STAMBOUL."

Telephone — STAMBUL No. 2700

**Merchants, Bankers, Shipping and Insurance Agents,
Mine Owners and Dealers in Minerals.**

LLOYD'S AGENTS

AND

AGENTS FOR

ROYAL MAIL STEAM PACKET Co.

PACIFIC STEAM NAVIGATION Co.

The "MOSS" STEAMSHIP COMPANY, Ltd.

KHEDIVIAL MAIL LINE,

The ROYAL EXCHANGE ASSURANCE CORPORATION.

The PHOENIX ASSURANCE COMPANY, Ltd.

The LONDON SALVAGE ASSOCIATION.

The "COMITE d'ASSUREURS."

The OSAKA MARINE & FIRE INSURANCE COMPANY.

JAPANESE STEAMSHIP LINES, etc., etc., etc.

EXPORTERS of Malting Barley, Grains & Seeds,
Opium Mohair, Skins, Sheepswool, Nuts, Minerals,
Flax, Hemp, Roans, etc., etc.

IMPORTES of all commodities.

AGENCIES:

Sea of Marmara, Black Sea Turkish ports, and all over Asia Minor.

colated down from the melted snows on surrounding mountains, is found in great abundance. It is only necessary to bore an artesian well and the water springs up, rising in many places ten or twelve feet above the ground, and everywhere coming near enough to the surface to facilitate irrigation. It is thus possible to supply in this region just the condition required by the palm tree, namely, a chance to "keep its head in the fire and its feet in the water."

Through the efforts of explorers of the Department of Agriculture, and particularly the courageous and energetic enterprise of the Popenoes, father and sons, several thousand young date palms of various varieties have been brought to this country from their native habitats in the Orient, within the last twenty-five years and planted in favorable localities in Arizona and southeastern California. The government has established several experiment stations, and extensive study has been made of date culture, especially with reference to its adaptations to American conditions, and the result is that at the present time there are to be found in the Coachella Valley several thousand acres of flourishing date orchards. This region, by the aid of irrigation and scientific agriculture, conducted under the guidance of the Agricultural Department Experiment Stations, is fited to become the tropical garden of the United States, capable of supplying the people of this country with an abundance of the most delicious dates which the world can produce.

American date-growing is in its infancy, of course, and how well our date farmers will be able to compete with foreign producers remains to be seen. A good packing-house has been erected at Coachella, where the dates are packed with scientific care and cleanliness, and the industry is certain to grow.

Mr. Paul Popenoe makes the following estimate of the cost of developing a date orchard:

"The cost of clearing, grading, and preparing the land for planting may vary from \$10 to \$15 an acre, of irrigation ditches and flumes from \$15 to \$50 per acre, and of the trees and planting from \$75 to \$150 per acre. The annual care of the grove is from \$30 to \$100 per acre up to five years of age. These estimates should all be sufficient to cover the expenses of a date plantation, with the exception of that of cost of trees. Owing to the rarity of offshoots of the choicest varieties, one must allow \$300 an acre for the palms."

A date orchard will begin to bear when seven or eight years old, and when once started, with proper care will continue to bear not during a single life-time only, but during several life-times, and for many years the annual crop increases in size. Single trees sometimes bear every year five or six hundred pounds of most delicious dates.

The date has been esteemed as a food in the Orient from the most ancient times, and at the present time constitutes a staple food. Inferior varieties of [dates serve as food for horses and camels.

The date consists almost entirely of sugar which, in the Fardh and most other varieties of dates, is almost exclusively of dextrose and levulose. These differ from cane sugar in that they require no digestion and are ready for immediate absorption and assimilation. The Deglet Nur and a few other rare varieties of dates contain cane sugar, and though sweeter than the ordinary date, are less desirable on account of the inferiority of cane sugar to fruit sugars.

The nutritive value of the date is about the same as that of rice. It contains the same amount of protein and

BANK OF ATHENS

SOCIÉTÉ ANONYME

1893

CAPITAL FULLY PAID DR. 48,000,000

Head Office ATHENS

Telegraphic Address: "ATHENIENEE"

BRANCHES:

GREECE:

ATHENS, AGRINION, ADRIANOPLE, ARGOSTOLI, CALAMATA, CANDIA, CANEA, CAVALLA, CHALCIS, CHIO, JANNINA, LARISSA, LEMNOS (CASTRO), METELYNE, PATRAS, PIRAEUS, RETHYMO, SALONICA, SAMOS (VATHY AND CARLOVASSI), SYRA, SMYRNA, TRIPOLITZA, VOLO.

CONSTANTINOPLE:

GALATA, STAMBOUL, PÉRA.

EGYPT:

ALEXANDRIA, CAIRO, PORT-SAID.

CYPRUS:

LIMASSOL, NICOSIA.

ENGLAND:

LONDON, MANCHESTER.

The Bank has Correspondents in all the Principal Cities of the world.
Every description of Banking Transaction.

the same amount of carbohydrate, although in the case of rice the carbohydrate, being in the form of starch, has to be digested before it can be utilized; whereas the date furnishes its carbohydrate in a form ready to be utilized at once.

It is for this reason, perhaps, that the Arab is able to consume considerable quantities of dates without injury. Travelers state that the natives are able to dispose of as many as six pounds of dates in a day.

Mr. Paul Popenoe, in his interesting work "Date Growing," tells us that during half the year an Arab in the date-growing region consumes an average of several pounds of dates daily. The Arab is noted for long life, vigor and marvelous endurance.

Concerning the use of the date by the Arabs, Mr. Popenoe tells us that cucumbers are considered a good accompaniment for dates because of the large amount of water which they contain.

"Probably the universal habit of drinking milk with dates is principally due to this same need—anyone who eats a lot of sugar will realize that nature calls for a drink. Milk has also the advantage of adding a little fat and protein to the dates and making a well-balanced diet; accordingly it will be found that most of the Arab methods of using the fruit are based on this principle.

"The simplest way of eating the date, and one of the most popular in the Sahara, is to split the fruit, remove the seed, and then fill the cavity with a chunk of butter; this is usually done at the table. The butter must be unsalted. This manner of eating the date has been popular throughout the Arab world for centuries.

"At Bagdad and in other regions where buffalo cream is available, it is allowed to clot thickly, and used as a substitute for butter. Sour or curdled

milk in various forms is a constant accompaniment of dates, and even to an Occidental palate they are delicious with cottage cheese or smierkase. Finally, fresh milk, especially that of camels, is considered a particularly fitting drink after a meal of dates; it cools the stomach and 'refreshes' the partly-digested fruit.

"In the Sindh desert of India onions are considered the proper accompaniment. When the dates ripen, everyone hastens to eat as many as he can hold; when he is replete, he eats a raw onion, and is then able to start on dates again.

"In districts where locusts or grasshoppers are obtainable, these insects are roasted and pounded to a paste together with fresh dates. The date paste known as madquqeh is also a standard article throughout the Orient; it is merely seeded dates pounded up with sesame oil, and is commonly used as a spreading for the tasteless native bread.

"Fresh dates are also baked in the oven, sometimes being basted with butter. They are particularly popular with American missionaries in Egypt when cooked in this fashion. Another standard Arab recipe is to chop up the dates and boil them in milk, often with the addition of chopped onions and a flour thickening. One of the specialties of Bagdad cooks is fried dates and eggs, particularly in the form of an omelet. A stew of dates with rice and milk is considered most appropriate for women at childbirth.

"In the Sahara dates are added to meat soups and stew, but the result does not commend itself to occidental tastes. The locally famous Date Sweet of the Persian Gulf region, which is made at home but never sold, consists of dates ground very fine, fried in oil, mixed with flour boiled in milk, and then made into cakes. The Persian-Indian preparation called ohugrian

AMERICAN COMPANY FOR INTERNATIONAL COMMERCE

60 BROADWAY—NEW YORK

SOLE DISTRIBUTORS
OF

★ “STAR” BRAND ★
ccc
— SHEETINGS —

“SPLENDID”

EXTRA PURE
SALAD COTTON OIL

“KOK”

OLEO OIL

“VIOLA” PATENT FLOUR

EXPORTERS OF:

ALCOHOL --SUGAR-- SEMOLINA

LEATHER = FOOD PRODUCTS = PARAFFINE

===== STARCH & GLUCLOSE =====

LEBET FRÈRES & C^o.

CONSTANTINOPLE
AGENTS

consists of ripe dates boiled and then fried in oil; it has the merit of keeping a year or more.

"Often dates are picked just before they are ripe, and pickled in vinegar, when they much resemble pickled walnuts.

"The fruit lends itself particularly well to the manufacture of preserves and jams. One of the best is the mu'asal of the Persian gulf, which is made by American missionaries at Busreh as follows: Remove the seeds from dates and replace them with walnut meats. Boil down some date syrup (any other good syrup would do), add sesame seeds to taste, and a little rose water for aroma: boil until thick, add the dates, put over the fire and let it come to a boil again; then put into tins or glass jars.

"Here is the Syrian method of preserving dates. Take the largest dates obtainable, preferably before they are entirely ripe; peel them with a sharp knife, put them in a pot, add a little more than enough water to cover them, boil until they are soft; then slip the seeds out and put an almond or pistachio, with a clove, in the cavity; boil the dates in syrup with a little lemon peel until of the proper consistency; take them off the fire and let them stand over night; then bring to a boil again and put into glass or glazed jars.

"Sometimes choice dates are preserved without cooking, as in the khurma shirah of Persia, for which the choicest dates are dried in the sun on mats, protected from the dew at night, until they are cured. Then they are washed with diluted date syrup, to free them from dust, and after draining are mixed with sesame, powdered ginger, walnut kernels and other spices. They are packed by pressing in jars, the jars being filled with thick date syrup and made air-tight.

"This date syrup is itself one of the most valuable by-products of the date,

and the activity in Arab kitchens during the date harvest, when the syrup is being prepared for the coming year, resembles that during fruit-canning time in other countries. In the best homes of Bagdad it is made as follows: Soft, seeded dates of the juiciest varieties are placed in a large pot and allowed to soak in water for a day or two, then boiled thoroughly. The dates are next placed in a closely-woven basket, to which heavy pressure is applied, and the juice drips into the pot containing the syrup resulting from the boiling. The pot is then allowed to stand in the sun for a week, until the syrup is as thick as honey, when it is ready for use. It sells in the market in winter at ten cents a quart."

The value of the date as a food is not half appreciated by the American public. The date not only furnishes a variety of sugar which is much more wholesome than cane sugar, but it also supplies a fine quality of food iron, which is entirely lacking in cane sugar. An ounce of dates, in fact, supplies one-third more food iron than an ordinary beefsteak, and iron of much finer quality.

The date is equally superior as a source of food lime and other food salts, supplying seven times as much lime as does beef tenderloin. The date requires nothing but the simple addition of milk to constitute a complete diet. A pound of dates and a quart of milk afford nourishment not only sufficient in quantity to supply the needs of the average person, but of the very highest quality.

The amount of dates at the present time consumed in the United States is scarcely one-third of a pound per capita, per annum. The amount of sugar consumed is more than 200 times as great. If one-half the sugar used were exchanged for dates, increasing the present consumption to one hundred

NISSIM TARANTO

CONSTANTINOPLÉ

STAMBOUL - KENADJIAN HAN □ □ TÉLÉPHONE, N° 588-589

EXPORTATION:

Exportation de tous les produits d'Orient.

notamment:

OPIUMS, Scammonée, Gommés
adragantes, Vallonnées, **TABACS**,
Fruits secs, **MOHAIR**, Laines,
Peaux, Métaux, etc., etc.

IMPORTATION :

IMPORTATION d'ARTICLES AMÉRICAINS

SEUL IMPORTATEUR DES:

Sheetings Henrietta CCC

„ Laurretta CCC

Nisto Salad Oil

Nisto Végetable Compound

COLONIAUX: divers & farines.

TISSUS français pour dames.

Manufactures, PAPIER, VERRERIES,

ENTREPOT DE TRANSIT.

Maisons à: NEW-YORK
SMYRNE

times the present amount, the result would be an immense gain in the health and vigor of the American people, one feature of which would be, without doubt, an increase of an inch or two in the average height.

The American people are suffering greatly from lime starvation, which is resulting not only in a loss of stature, due to lack of bone development, but an almost universal premature decay of the teeth. Cereal foods, particularly the popular breakfast foods, are deficient in lime.

The free use of dates with milk as a part of the American breakfast would conduce greatly to the improvement of the national health and the lowering of the mortality rate.

Any one who desires information concerning date culture in the United States, may obtain literature upon the subject by addressing the U. S. Agricultural Department, Washington D. C.

"Good Health"

Lime in the United States

Although the production of lime in 1920 was greater than in 1919, the supply was insufficient to meet the steadily increasing demand, due in most cases to the shortage in transportation and labor. Approximately 140 different industries in the United States use lime in some form.

Limestone, from which the greater part of the lime produced is derived, is widely distributed throughout the United States, in varying degrees of purity. The amount of impurities in the raw material, such as silica, iron and alumina, determines the value of lime for its various uses. Quicklime is obtained by burning limestone under slow but constant heat sufficient to dissociate the carbonic acid gas from the stone, leaving the commercial product. Kilns may be intermittent or continuous. Intermittent

kilns are used only by small producers as they must be cooled and reheated each time they are charged. Continuous kilns are constructed so that the lime may be withdrawn from below at regular intervals, and the kiln recharged with limestone from above.

Hydrated lime is that which has been slaked under standardized conditions and expert supervision. A specific amount of quicklime is mixed with a certain quantity of water so as to produce a perfectly slaked lime which does not require slaking when used in making mortar. Hydrated lime serves most of the purposes for which quicklime is used and its prepared and finely divided condition provides a more economical and thorough distribution of the product with a minimum of waste.

Where lumplime is not used, lime dust and small particles of lime derived from the burning process are hydrated. Some plants hydrate the entire output — all types of hydrators provide for mechanical mixing and for conserving the heat of the chemical reaction in sufficient degree to hydrate effectively without burning.

The older methods used in burning limestone were those in which the flame and fuel used came in direct contact with the limestone. Numerous small plants were used, especially in Pennsylvania where it has been the custom for farmers to burn the lime for their own use and to sell in small quantities to their neighbors. In 1916 there were in operation in the United States 778 plants which burned 4,073,000 tons of lime. Recently on account of high cost of fuel and labor there has been a tendency to concentrate the industry into larger production units. In 1920 a total of 3,476,000 tons of lime was burned in 515 plants. Continuous vertical shaft kilns are now the standard.

FOSCOLO, MANGO, & Co. Ltd.

(Established over 40 years)

TELEGRAMS:
FOSCOLO-Constantinople

TELEPHONE:
P E R A 2505/6

Steamship, Commission and Forwarding Agents.
Coal Importers, Brokers and General Merchants.
Exporters of Tobacco, Mohair, Seeds, Fruits,
and General Produce.

AGENTS FOR

The Royal Netherlands Steamship Company, of Amsterdam
Regular sailings from Amsterdam to Portugal, Greece,
Constantinople and the Black Sea.

AGENTS FOR

The Anglo-Saxon Petroleum Company, Ltd. of London.

AGENTS FOR

C. H. SPRAGUE & SON, of BOSTON, Mass. U. S. A.
(Regular sailings from Boston to the Levant).

AND VARIOUS OTHER BRITISH AND FOREIGN STEAMSHIP COMPANIES.

LARGE STOCKS OF BRITISH AND TURKISH
COALS ALWAYS AVAILABLE.

AGENTS FOR

The British Equitable Assurance Company, Ltd., of London
MARINE INSURANCE EFFECTED AT LLOYD'S

Agent in London: J. A. MANGO, 49, LIME STREET, London, E.C. 3.

Agent in Piraeus: P. A. MANGO, Piraeus.

These are upright cylindrical furnaces consisting of iron or brick shells of various sizes lined with fire brick. Suitably insulated rotary kilns are used extensively in burning lime to be hydrated. The number of field kilns is being rapidly reduced and the more efficient and effective types of continuous kilns are being substituted.

Commerce Monthly.

Bread-making in Classic Times.

At the time of Hesiod the pestle and mortar were apparently just coming into use in Greece, as Hesiod takes pains to advise that the mortar should be about 3 feet high and 4 1/2 feet in length. He mentions kneaded milk cakes as a particular delicacy, but they still may have been unleavened, and merely mixed with milk instead of water to be made more palatable.

Throughout the classical Greek period bread made of barley was most commonly used by every-day folk, while wheat bread was well known to the higher classes. Rye bread was not in use and was looked down upon as the food of foreigners.

With the spread of slavery in ancient Greece, it became less common for the bread to be baked in the average home. In Athens it was said to have been more frequently bought in the market than to have been home-made.

The bakers as a class were usually slaves. The bakery, where of course the milling was done as well, might be owned by a citizen or a freedman who employed his own slaves, and even rented others for the hard task of grinding, and the more skilled work of baking.

Under certain exigencies, however, even citizens might hire them-

selves out to the bakeries. Two young philosophers, Menendemus and Asclapiades, while studying philosophy, attempted to support themselves in secret by working in a bakery, but someone brought a charge against them of having no visible means of support, and in order to free themselves they had to send for the baker. His account of their industry so pleased the senate of the Areopagus that they were not only freed, but given a present from the state to encourage them in their studies.

The earliest recorded sanitary baker was probably Anxarchos, who was also an Epicurean philosopher and one of the companions of Alexander the Great. In order to avoid any possibility of the slaves contaminating the bread, he made the kneaders wear gloves on their hands, and even bound gauze over their mouths and nostrils.

In the large households of the wealthy the baking was given over to special slaves. With the increase of luxury some of the slaves most skilled in the art became of the greatest value. Herodotus states that Croesus erected a statue of gold to the woman slave who prepared his bread.

In the classic period in Athens, while an ordinary skilled baker might be bought for the equivalent of \$ 100.00, an especially skilled one might bring twenty times that amount.

Bakers Weekly.

The French sugar crop of 1921 is estimated at 230,000 tons, as compared with 305,000 tons in 1920. The yearly French consumption of sugar is 600,000 to 650,000 tons, so that the imports in view will amount to about 400,000 tons.

A. GASTUN & Co., INC.

INTERNATIONAL MERCHANTS

Cable Address
«GASTUN»

48 STONE STREET
NEW YORK

All codes
Used

EXPORTERS OF THE WORLD-OVER WELL KNOWN STANDARD BRANDS

FLOUR

AMERICAN CANADIAN HIGHEST QUALITIES

«GLOBARD» «BYRON» «ATLANTA» «MIRADA» «ROLANDA»

OILS

«RICHMOND»

Extra Choice Salad
Cotton Oil

«PIEDMONT»

Choice Pure Salad
Cotton Oil

«INKOA»

Choice Pure Salad
Corn Oil

«AMERICAS-BEST»

Oleo Oil No 1

«STERLING»

Oleo Oil No 2

«LIGHTING»

Oleo Oil No 3

COTTON GOODS

SHEETINGS A

«CABIDO A»

SHEETINGS CCC

«VOLANDA CCC»

SHEETINGS AAA

«GRANDOR AAA»

GREY DRILLS

«CORONET HHH»

SUITINGS DRILLS

«CORONET 333»

ARMY DUCKS

«CORONET»

LEATHER

«HYGRADE» BLACK KID, COLORED BID, PATENT KID,

«HYGRADE» PATENT CALF, PATENT SIDES, PATENT COLT

«HYGRADE» BLACK CALF, COLORED BOARDED & SMOOTH
Sole Leather & Dry & Wet Hides CALF,

SPECIALISTS IN FUTURES

RAW COTTON, GRAIN, SUGAR, COFFEE, RICE.

ALCOHOL-CHEMICALS-IRON & METALS

PAPER-GLUCOSE-MOLASSES-STARCH-GREASES-TALLOWES

Commerce and Industry of the United States in 1921

by O. P. AUSTIN

*Statistician, The National City Bank
of New York*

The United States in common with all other parts of the world witnessed a marked decline in its commercial and industrial activities in the year 1921. With the fall in prices of farm products, which was perhaps the beginning of the downward movement in prices, the earning power of a very large element was seriously reduced and with this came a corresponding reduction in its purchasing power.

With the sharp reduction in prices of farm products which occurred in the very early part of the year and continued down past the middle of 1921, the purchases by the farmers of the products of the factories were greatly reduced and the falling off in sales made by the factories in turn compelled them to either close their mills or reduce the wages which they were paying to their employees. Meantime the development of similar conditions abroad by which the buying power of the masses was reduced resulted in a slowing down in the amount of merchandise which could be sold abroad, and with the lack in purchasing power of our own people the manufacturers found it necessary to reduce their purchases of foreign materials.

As a result of these conditions the foreign trade of the United States in 1921 showed a grand total of but about \$7,000,000,000 as against a little more than \$13,000,000,000 in the year immediately preceding. While a part of this decrease in the foreign trade is due to smaller quantities of merchandise, it is probable that about one half of the reduction in the trade

totals as expressed by values is due to the lower prices of the chief articles forming the import and export trade. The raw cotton exported, for example, in the ten months ending with October, 1921, went at less than half the price of last year, and as a consequence the 5,120,000 bales exported in 1921 brought only \$407,000,000, while a smaller quantity, 4,643,000 bales, exported in 1920 brought \$650,000,000, an increase of eleven per cent in quantity exported, and a decrease of fifty-eight per cent in value. The 73,000,000 gallons of illuminating oil exported in October, 1921, was valued at 6¼ million dollars, while the 70,000,000 gallons exported in the same month of last year was valued at over \$10,000,000.

On the import side lower prices were an equally important factor in the smaller figures of total imports. The 362,000,000 pounds of sugar entering the United States in October, 1921, was valued at only \$10,000,000, while a much smaller quantity, 271,000,000 pounds, entering in the same month of last year was valued at \$38,000,000. The india rubber imported in September, 1921, came at 14 cents per pound against 39 cents in the same month of last year; the raw cotton at 16½ cents per pound against 54½ cents a year earlier, and the pig tin 27 cents per pound against 55 cents. On the export side bituminous coal went at \$5 per ton as against \$10.35 a year earlier; raw cotton 16 cents per pound against 35 cents; wheat \$1.34 per bushel against \$2.90; steel billets \$30 per ton against \$72; and bacon 15 cents a pound against 24 cents one year earlier.

It is not surprising then that the totals of foreign trade of the United States show tremendous reductions both in imports and exports, and in all the great groups of articles entering or leaving the country. Crude

ROUSSO & DANON

Established in 1901

NEW-YORK	Park Row Building. =====
PIRÆUS	Hippocrate Street. =====
CONSTANTINOPLE	Phaleron Han, Galata =====
SMYRNA	Rue Maltese. =====

===== SHIPPING AGENTS =====

===== IMPORT AND EXPORT =====

Importers of:

Oleo Oil, Cotton Seed Oil, Food
Stuffs, Shoes, Sole Leather,
Upper Leather and
Iron Goods.

Telegraphic Address:

ROUSDAN	NEW-YORK.
ROUSDAN	PIRÆUS
ROUSDAN	CONSTANTINOPLE
ROUSDAN	SMYRNA

material imported for manufacturing shows for the ten months ending with October, 1921, only \$690,000,000 against \$1,600,000,000 in the same months of last year; foodstuffs \$560,000,000 against \$1,602,000,000 and manufactures \$806,000,000 against \$1,460,000,000 in the same months of last year.

On the export side, the decline is somewhat similar, though not quite as great. Raw manufacturing material, which is being sold at prices far lower than those of a year ago, shows a total of but \$806,000,000 against \$1,571,000,000 in the same months of last year; foodstuffs \$1,234,000,000 against \$1,685,000,000; and manufactures \$1,764,000,000 against \$3,440,000,000 in the corresponding months of last year, the reductions in manufacturing material and manufactures having been greater than those in foodstuffs which the world must have for its daily requirements irrespective of its purchasing power in other commodities.

Thus while the import trade of the United States does show a falling off of fifty-five per cent and the export trade about forty-five per cent, the decrease is due in a very considerable degree to the lower prices for which the world has been clamoring and also in the lower purchasing power which reduced wages have brought to the purchasing communities at home and abroad.

The Channel Tunnel project, though overshadowed somewhat by other international problems in the last two or three years, is not being neglected by its supporters and promoters. The leaders in France and England are respectively M. Paul Cambon and Sir Arthur Fell. In France, 82 consuls généraux have voted in favor of the tunnel.

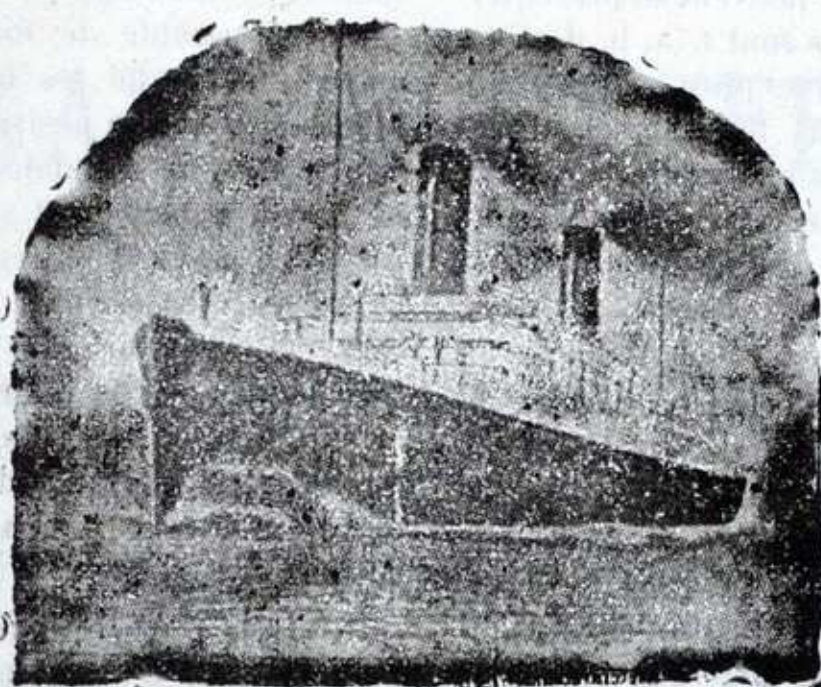
Amérique et les Cotations C. A. F.

Pour faire suite à leurs efforts infatigables en vue d'obtenir l'efficacité dans leurs transactions étrangères, les industriels américains se sont rendus compte des avantages qu'ils pouvaient retirer par l'emploi des cotations c. a. f. Coût, Assurances, Fret, (Anglais: *C.I.F.*, *Cost, insurance, freight*) dans les ventes étrangères. Les écrivains américains traitant des sujets concernant l'exportation, ont depuis des mois fait leur possible pour que leurs compatriotes se rendent compte de l'importance qu'il y avait pour eux d'adopter cette méthode plus avantageuse de faire des affaires et qui facilite les transactions avec les acheteurs étrangers. Depuis des années les plus grands exportateurs du pays ont reconnu les avantages de la cotation c. a. f. et s'en sont servis avec succès et maintenant l'aversion qu'avait les exportateurs moins expérimentés pour empêcher l'emploi de cette cotation commence à disparaître rapidement.

Avant d'aller plus loin sur les raisons de ce changement de la part des manufacturiers américains, il serait peut-être préférable de s'arrêter un moment pour donner une explication brève de ce système et faire la comparaison des méthodes employées pour coter des prix. La cotation c. a. f. qui comprend le prix des marchandises, l'assurance maritime sur ces marchandises et les frais de fret jusqu'au port d'arrivée, a bien des avantages sur la méthode f. a. b. (franco à bord) qui selon les spécifications, rend ou ne rend pas l'expéditeur responsable pour les frais de transport et les risques pendant le voyage. Dans le cas de f. a. b. du point d'origine, qui est la formule ordinaire de l'expéditeur américain, l'expéditeur ne fait que préparer les marchandises pour qu'elles soient en bonne condition et l'acheteur prend à

CABLE
ADDRES
METAXA

CODES
A. B. C.
5th EDITION
LIEBER'S



ZISSI N. METAXA & SON.

Established in 1892.

MEMBERS OF THE AMERICAN CHAMBER OF COMMERCE
FOR THE LEVANT.

GENERAL STEAMSHIP AGENTS
BROKERS & TIME CHARTERERS.

Merchants, Importers, Exporters
COMMISSION & INSURANCE AGENTS.

AGENCIES ALL OVER THE LEVANT.

Every facility for conducting Shipping operations.

== Stevedores ==

Loading and discharging attended to by our own staff
in the shortest time, lighterage.

ADDRESS:

MERKEZ RICHTIM HAN No 15, 16, 27 III FL. GALATA

Telephone Pera 2897

CONSTANTINOPLE.

Correspondence invited.

sa charge tous les risques et doit payer tous les frais qui peuvent se présenter. Quand les termes sont f. a. b. destination, ce qui arrive plus rarement, le vendeur paye tous les frais de transport et prend à sa charge toute responsabilité pour la sécurité des marchandises pendant le transit jusqu'à l'endroit de livraison convenu. Dans ce cas les risques sont considérables.

En acceptant un prix coté c. a. f. le vendeur n'a simplement qu'à fournir les marchandises, prendre une police d'assurance qu'il envoie à l'acheteur et payer le fret jusqu'au port de livraison. Cette méthode paraît être semblable à celle du prix coté f. a. b. à destination, et elles l'est, avec l'exception toutefois que l'expéditeur est exempt de tous frais pour pertes ou dommages qui pourraient arriver aux marchandises dès qu'elles sont mises entre les mains de ceux qui les transportent. Les risques qui peuvent se présenter après retombent sur l'acheteur, qui, en cas d'accident, doit s'en prendre à ceux qui ont transporté la marchandise car ils agissent alors comme son agent. Il n'est pas non plus prescrit que l'expéditeur paye le fret si la compagnie de bateaux ne demande pas un paiement d'avance. La somme peut être déduite de la facture remise à l'acheteur.

Le plus grand défaut qui existe dans le système américain qui consiste à coter f. a. b. au port, est l'incommodité et l'incertitude qui en résulte pour les acheteurs. Par exemple, un marchand brésilien désirant acheter des marchandises américaines reçoit un prix de fabrique. Il n'a aucun moyen de connaître le prix du camionnage domestique ou du transport par voie ferrée, et il est naturel qu'il hésite quelque peu à accepter comme bonne l'information provenant de sources lointaines. Il lui faut pas mal de temps pour qu'il puisse arriver à établir son prix de revient exact, et les erreurs

fréquentes ainsi que les changements dans les cotations, en plus de son manque pardonnable de foi envers ceux qui lui ont donné les informations, le mettent dans une position plutôt précaire s'il est engagé dans un commerce où la concurrence est sérieuse. Il en est de même si le prix qu'il a reçu est coté f. a. b. wagons au port d'expédition. Il est encore une fois placé dans une fausse position pour arriver à connaître les frais exacts pour le camionnage, frais d'allège, les risques pendant la manutention, l'emmagasinage, frais consulaires, etc.

Il lui est aussi difficile de déterminer les taux d'assurance ou primes. Pour obtenir le tarif de New-York à son port, il doit en général demander cette information aux bureaux de la compagnie de transport à New-York. A cause de la pratique usitée par les lignes de bateaux, qui, contrairement aux autres moyens de transport courants ne publient pas de tarifs réguliers, il lui est impossible de se procurer une cotation pour une expédition par fret en partance dans un port d'arrivée.

En plus de toutes ces difficultés il y a aussi les erreurs sérieuses qui sont faites par le vendeur dans l'établissement du poids brut, poids net, poids légal et dimensions cubiques de son produit. Des erreurs de ce genre ne sont pas rares et bien souvent elles ont des résultats désastreux pour l'acheteur étranger qui ne peut pas se rendre compte exactement du prix de revient de sa marchandise arrivée chez lui.

A cause de ces inconvénients et hasards on ne doit pas s'étonner que le commerçant brésilien se tourne pour la même marchandise, vers le manufacturier européen qui lui, à cause de son expérience dans le commerce étranger, se rend compte des avantages et de la nécessité qu'il y a à coter à ses acheteurs des prix pour la mar-

KAHN BROTHERS

(Kahn Frères)

Constantinople, Astartjian Han

MERCHANTS & COMMISSION AGENTS

General Importers and Exporters

AND GOVERNMENT CONTRACTORS

IMPORT

Cotton goods
Metals
Shoeware
Leather
Rubbershoes
Autocars
Tyres
Rubber goods
Oleo Oils
Paper
Hardware & tools
etc. etc.

EXPORT

Mohairs
Wool
Skins & Hides
Silk
Opium
Kernels
Nuts
Grains
Gum Tragacanth
Otto of Roses
Tobacco
etc. etc.

First Class Bank References

chandise arrivée chez lui. Ce résultat alarma les exportateurs américains et a servi à attirer son attention sur la nécessité d'adopter la cotation de prix avec formule c. a. f.

La répugnance évidente de la part du manufacturier américain à adopter cette méthode de donner des prix, est attribuée en grande partie à un malentendu et aux efforts qu'il faisait pour s'éviter des ennuis additionnels pour obtenir les informations nécessaires qui étaient extrêmement plus difficiles pour l'acheteur étranger à obtenir. Beaucoup d'industriels américains pensaient que c. a. f. leur imposait de prendre à leur charge les risques de transport maritime, mais le fait même que les expéditeurs ou les compagnies de transport deviennent les agents de l'acheteur dès que ces marchandises sont à bord a été compris par lui. La réalisation de ce qu'il n'est pas obligé à supporter des risques après transaction faite, et qu'il n'a simplement qu'à fournir les marchandises, payer d'avance les frais du fret jusqu'à la destination stipulée par le contrat, et à payer les frais d'assurance, est arrivé à arrêter les doutes et la confusion qu'il avait dans l'esprit quand on lui demandait un prix c. a. f.

Contrairement à l'impression générale, l'expéditeur américain a appris qu'il n'est pas difficile pour lui d'obtenir un prix à destination c. a. f. Les renseignements nécessaires pour établir cette cotation sont maintenant très faciles à obtenir par l'entremise des experts expéditeurs. Le seul risque qu'il puisse encourir est une possibilité de fluctuation dans le tarif du fret. Ceci, toutefois, ne serait que minime à moins que le tarif soit tout d'un coup sujet à des conditions anormales et extraordinaires, ce qui est bien rarement les cas.

Un autre avantage à indiquer aussi dans l'adoption du c. a. f. est que cette cotation aura pour résultat une aug-

mentation d'affaires. Le temps de l'acheteur est épargné, ses risques sont diminués, et il est certain d'obtenir un prix exact; en conséquence il lui est donc possible de vendre à une plus petite marge de bénéfice, ce qui tend donc à augmenter son volume d'affaires. Cette raison ainsi que la réalisation de l'impossibilité de faire des affaires tout en luttant contre la concurrence sans un prix, coté c. a. f., ont été un des agents importants qui ont servi à convertir les exportateurs américains à l'emploi de la formule mentionnée.

L'attitude des commerçants étrangers en ce qui concerne l'emploi du c. a. f. est indiquée par les lettres d'approbation qu'ils envoient à ce sujet, et dans le monde entier, les consuls américains ont été unanimes à reconnaître que l'adoption de ce plan renforcera et augmentera les rapports commerciaux entre les vendeurs des Etats-Unis et les acheteurs étrangers.

Office Appliance Exporter

Vessels under American Registry

The tonnage of American vessels in foreign trade on June 30, 1921 was almost eleven times greater than in 1914, according to the annual report of the Commissioner of Navigation. A total of 28,012 vessels of all kinds, totaling 18,282,136 gross tons, was under American registry on June 30th. This was an increase of 1,958,114 gross tons, or twelve per cent, over the preceding fiscal year.

Of this total, 5,951 vessels of 11,077,398 gross tons were in the foreign trade, 21,478 vessels of 7,163,136 tons in the coasting trade and 583 vessels of 41,600 tons in the fisheries. Vessels built during the fiscal year numbered 1,361 of 2,265,115 gross tons; American ships lost during the year totaled 183,209 tons and those sold to foreign flags 116,572 tons.

Cable address: "ABSSCORP"

===== American =====
Black Sea Steamship Corporation
STEAMSHIP AGENTS & BROKERS

— + —
General Office: CONSTANTINOPLE

Branch Offices: GALATZ, BRAILA, CONSTANTZA, VARNA, BOURGAS

— + —
Agents:

ALL PORTS OF BLACK SEA AND LEVANT
— + —

===== ADDRESS YOUR SHIPS TO THE CORPORATION
FOR EFFICIENT AMERICAN SERVICE =====

— + —
Merchandise handled for America and the Levant

===== SHIPS DISCHARGED BY OUR OWN
STEVEDORING ORGANIZATION =====

— + —
Address: CONSTANTINOPLE, Galata

CITÉ FRANÇAISE, 2d floor

Telephone: Pera 2047

MOLASSES

By C.W. Taussig

Molasses contains from five to fourteen per cent of so-called non-sugars, which have to this day defied accurate analysis.

The first mention of sugar as well as of molasses derived from sugar, is to be found in Hindu mythology. The hermit Vishva Mitra created sugar cane to be used as a heavenly food by the Raja Trishanku in an earthly paradise created especially for this most worthy prince. The Raja wished to go to heaven during his lifetime, but Indra, the Ruler of Paradise, refused to receive him; consequently Vishva Mitra, wishing to please his royal highness, created an earthly paradise for him. After its downfall the sugar cane was passed on as a perpetual memorial to the miraculous Vishva Mitra.

Later in history we find that Alexander the Great and his followers found growing in India a reed, out of which "honey" could be produced without the aid of bees. This so-called honey was none other than cane syrup, or molasses.

Pliny and writers of his time refer also to "honey" that is made from cane.

The first variety of sugar mentioned in history was simply a concentrated cane juice, or, as it would probably be called today, "Molasses Sugar," known then as "Gur". This was produced in India, probably as far back as pre-historic times.

In A. D. 627, at the time of the Conquest of Dastagerd in Persia, sugar was among the spoils taken by the Byzantines. From that time on, the art of making sugar and molasses spread rapidly. When Marco Polo visited China in 1270-1295 the Chinese were making sugar and open-kettle

molasses very much in the same manner as they are being made today in the Island of Barbados, boiling the juice of the sugar cane in open kettles over a wood or bagasse fire and, after concentration, allowing the molasses to run off from the sugar.

In 1493 Colombus introduced sugar and molasses into Santo Domingo. This probably was the first time sugar and molasses were ever produced in the Western Hemisphere.

The production of molasses in colonial times was as important as sugar. Molasses was considered a prime article of food in those days.

The principal modern use of molasses is in the manufacture of alcohol. This made the molasses industry an important one during the war, as alcohol was much used in the manufacture of explosives. At that time the remote corners of the world were scoured for molasses and every pound that could possibly be secured was brought to the distilleries and transformed into alcohol. Had it not been for the proper organization for handling the vast quantities of molasses required for this purpose, the manufacture of munitions would have been severely handicapped.

As a sugar factory is only operated for a few months in the year, whereas molasses is consumed throughout the year, the question of storage and distribution is an important one. Steel tanks for holding molasses, some with a capacity of a million gallons or 20,000 barrels, have been established in Porto Rico and Cuba. Pipe lines, similar to those used in the oil industry, and powerful pumps have been installed. At San Juan there is a pump which will handle 300 tons of molasses per hour. At New York a discharging pump will draw off the molasses at the rate of 240 tons per hour.

Open kettle molasses is boiled down

C. P. RIZOPOULOS & D. G. ARABOGLOU

STEAMSHIP AGENTS & BROKERS

COMMISSION AGENTS—COAL CONTRACTORS

AGENTS

for the

EXPORT STEAMSHIP CORPORATION of NEW YORK

THE NORWEGIAN RUSSIA LINE

Managers Winge & Co.

CHRISTIANIA

And Many Greek Steamship Owners

46 GALATA QUAY, CONSTANTINOPLE

Codes: ABC 5th Edition
Scott's 10th Edition
Bentley's

Cable: RIZOPOULOS-Constantinople
Telephone: PÉRA 1930

PARSEGH G. ESSEFIAN

Import and Export Merchant

37, Achir Effendi Han Stamboul

CONSTANTINOPLE

Established 1892

Telegraphic Address: "ESSEFIAN CONSTANTINOPLE"

Wholesale Exporter of

GUM TRAGACANTH, GOAT SKINS

SHEEP CASINGS, OPIUM, WOOL

BANKERS

Imperial Ottoman Bank

to the point where crystallization takes place and the entire mass is then placed in hogsheads or barrels upon an inclined floor, in order that the molasses will drip from the sugar. This process of extracting molasses from the sugar has been in vogue in Louisiana and the West Indies for more than three-quarters of a century and that quality of molasses is regarded as the very best. It has so delicate and delicious a flavor that it sells upon its color and flavor and brings higher prices than even the cane juice syrups.

Centrifugal molasses is produced by boiling the cane juice to the point of crystallization and then separating the molasses from the sugar crystals by passing it through a fast-rotating machine called a "Centrifugal." Centrifugal molasses is divided into first, second and third molasses. First molasses depends for its quality upon the quality of sugar from which it is separated. If the sugar is of a grade known as Clarified or Plantation Granulated, the molasses separated from it is of much better quality than if it were derived from raw sugar.

Second molasses is produced from first molasses after allowing it to remain in iron tanks in the hot room of the Sugar House some two or three weeks, until crystallization takes place. It is then passed through centrifugals in the same manner in which first molasses is produced, the residue in this instance, however, being called second molasses.

Third molasses, or final molasses, is made from second molasses in exactly the same manner as second molasses is produced, except that it takes longer for the crystals to form in the second molasses than in the first. Therefore second molasses, when the second sugars are extracted, is thrown into large magna tanks and allowed to remain in this condition until the following summer when the weather gets

very warm; then crystals form and are separated from the molasses by passing it again through the centrifugal. The lowest grade of third molasses is known as blackstrap.

Most of the molasses used by the biscuit baker is bleached with sulphur dioxide — in fact all of the Louisiana molasses is bleached. Attempts have been made to produce a molasses from raw sugar by boiling with acid, but the characteristic flavor of good molasses cannot be obtained in this manner. Molasses cannot be made artificially nor can it be purchased on chemical analysis. A chemical analysis of molasses does not give the color nor the flavor, which are the two most important factors to the practical baker. Color and flavor in molasses are produced by nature and not by man.

Bakers Weekly

Bridge to Connect Detroit with Canada

Plans for the new international suspension bridge to connect Detroit, in the United States, with Windsor, across the river in Canada, which have just been announced, show that it will have the longest single span in the world, measuring 1802 feet, or 24 inches longer than the great cantilever at Quebec. Of double-deck construction the new link between Canada and the United States will accommodate street car, automobile and pedestrian traffic on the upper deck and passenger and freight train service on the lower deck.

Barring unforeseen delays, actual construction work will commence next spring and within four years the upper deck should be ready for service. Without interfering with traffic on the highway deck, it is planned then to begin construction of the lower deck, which should be finished in two years more.

===== HOTELS =====

M. TOKATLIAN

RESTAURANT—TEA-ROOM

PÂTISSERIE & CONFISERIE

===== PÉRA =====

===== SAISON D'ÉTÉ =====

THÉRAPIA—BOSPHORE

SADULLAH, LEVY & MANDIL

CONSTANTINOPLE

Established in 1868.

Wholesale and Retail Dealers

ORIENTAL RUGS & CARPETS,

EMBROIDERIES,

ANTIQUITIES, JEWELRY.

Buying Agency

on commission basis for Continental
and American firms.

Babson by Wireless Telephone

On December 19, 1921 an audience of thousands of persons, scattered throughout the states east of the Mississippi, in southern Canada and on vessels at sea heard by means of the wireless telephone an address by Roger W. Babson, business statistician.

It was the first business address ever given over the radiophone, and probably the largest audience which ever heard a business talk. Mr. Babson's speech was sent out from the powerful Medford Hillside wireless station of the American Radio and Research Corporation.

On numerous occasions concerts and sermons have been delivered by prominent persons by wireless telephones, but this was the first occasion on which a business address was delivered in this manner. Just prior to 8:15, when the talk began, the thousands of wireless enthusiasts "tuned in" on a 350 meter wave length and "got" station 1XE.

Mr. Babson spoke on "When Shall We Return to Prosperity". He pointed out the fundamental conditions which underlie the prosperity of a nation and the things which America must do to return to a sound business basis, for the benefit of the business man and employé alike.

"Economists and some of our so-called business authorities," said he, "are becoming befuddled by the prevailing pessimism and are issuing statements to the effect that business will not improve until 1923 or 1924. I should like to go on record as contradicting such an opinion. Fundamental conditions indicate that the low point and turn upward will arrive in 1922."

Mr. Babson stated that the country is suffering the natural results of war-time prosperity and he discussed several of these results.

"The inflation", he continued, "is being wrung from the wholesale prices which are down to an average of 25 per cent above 1913 levels. Retail prices have not declined so much, but will probably work lower on lines not already readjusted. Wages have been reduced in many quarters to make lower costs possible. Workers are coming to see that they must give as much as they can for the dollar they get, instead of trying to give us as little as possible and still hold the job.

"The fact is that business is larger today than it was in 1913. The difficulty lies in the fact that the manufacturer now must market a great deal more goods in order to keep his enlarged plant busy. With this situation I can see for 1922 the keenest competition that any of us have experienced.

"This same competition will, in the long run, solve our problems. It will increase efficiency. It will lead to greater and more economical production through the standardization of the manufacturing processes. It will lead to lower costs and lower prices. The manufacturer, too, will concentrate his attention on giving just as much as he can for the dollar he gets, rather than trying to get just as much as he can from the product he offers. In short, we are rapidly getting back to fundamentals of service. We are getting back to the solid foundation of honest value. In reality, we are all very much better off today than we were during the feverish rush of the last half of 1919."

The number of parcels handled by the United States post offices during the past year reached a total of two and a half billions. In 1913, the first year of parcel post in the United States, the number was less than a third of a million.

Code A. B. C.
5th Edition

Cable Address: AMLEVAG
Constantinople

AMERICAN LEVANT AGENCY

BRANCH OF

FILS D'ASLAN FRESCO

Iktissad Han, 3^{me} Etage, GALATA

Rue des Quais No. 141,

CONSTANTINOPLE

IMPORTERS-EXPORTERS

First Class Banks as References.

Telegraphic Address: "ASLANFRESCO Constantinople"

Fils d'ASLAN FRESCO

Iktissad Han 1-2, Galata, Rue des Quais, 141

CONSTANTINOPLE

THE OLDEST

GOVERNMENT CONTRACTORS IN TURKEY

ESTABLISHED IN 1866

Furnishers to the Imperial Ottoman Government
of

Cotton Goods, Army Cloth, Woolen Goods,
Hides, Cereals, Military equipment, &c. &c

FIRST CLASS BANKS AS REFERENCES

The Tourist in Palestine

With direct railway connections and the luxuries of dining and sleeping car accommodations between Cairo and Jerusalem, American tourists can have an easy and comfortable trip to the Holy Land from Egypt.

The Holy Land offers even greater attractions than ever before. New roads and railroads have been built and every opportunity is given the tourist to visit the famous battle fields of Gaza and Tul Keram.

To-day one can go from Dan to Beer-sheba by motor car in four hours' time. In less than 40 minutes one can run from Jerusalem to the ancient city of Hebron where the bones of Abraham lie buried. One leaves the chilly heights of the Mount of Olives to be on the banks of the Jordan and the shores of the Dead Sea, 1300 feet below sea level, in an hour's time.

Army Tests of Compressed Horse-Feed

A practical compressed forage for horses has been developed by the United States Army. The formula for this ration has not been made known but it is reported to be composed of oats of the finest grade with about thirteen per cent pure can molasses as a binder. The forage measures six inches in width by twelve inches in length and three-quarters of an inch in thickness. A brick of this size equals four quarts of oats.

Horsemen all over the United States were interested in the last test made by the army to determine the food value of this forage. A 450-mile march was taken with more than 650 animals and less than 250 officers and men. The rations were reduced to seven and a half pounds compressed forage and ten pounds of hay per horse per day as against

regulation of twelve pounds of oats and fourteen pounds of hay per horse per day. The march lasted twenty-one days and every animal finished in excellent condition.

Until the United States Army started these experiments Germany was the only nation that used this concentrated bulk form feed for its army. Army men have been trying for half a century to find a satisfactory field forage which would reduce weight as well as bulk and at the same time give the horses a food which would keep them in good condition.

Employment in the United States

The United States Department of Commerce, through the Bureau of the Census, has issued a preliminary statement showing that the total number of persons ten years of age and over gainfully occupied in the United States in 1920 was 41,609,192, which is an increase of nine per cent over the number occupied in 1910—36,167,336.

The "gainfully occupied" classes comprise (1) employers, (2) professional and other persons working on their own account, and (3) employes working for salaries or wages or their equivalent.

The percentages which the number of gainfully occupied persons formed of the total number of inhabitants ten years of age and over were: 1910, 53.3; 1920, 50.3. The decrease from 1910 to 1920 was confined mainly to the field of agriculture and is believed due, in large measure, to the change of the census date from April 15 in 1910 to January 1 in 1920. The number of persons employed as farm laborers would naturally be considerably smaller in January than in April.

Of the 41,609,192 persons gainfully occupied in 1920, 33,059,793 were males and 8,549,399 were females.

Code A. B. C. 5th Edition,

Cable Address
MERICA-CONSTANTINOPLE.

TH. N. MERICA

Kutchuk Tchoraptchi Han, Stamboul, Chemical Warehouse & Drugs.

Taptas Han, Galata, 2nd & 5th Floors,

Handan Han, Stamboul, Nos. 1, 2, 2bis, 3, 8, 13, 16.

Dépôt Havouzlou Han, Stamboul.

Telephone: Péra 1852,
St.: 1428.

IMPORT-EXPORT

GENERAL MERCHANDISE

IMPORTER OF:

All kinds of Cotton & Woolen Goods, Drugs
& Chemicals. Hardware Goods, Combustibles.

EXPORTER OF:

Sheep Casings, Raw Furs, Gum Tragacanth,
Hazel Nuts, Mohair, Wool, Opium, Rose Oil,
Raw Silk, Raw Skins & in General all Pro-
ducts of Turkey, Caucasus, Russia & Persia.

≡ Exporter of PERSIAN CARPETS & RUGS. ≡

Established of old in Persia, with Stores
≡ at Teheran, Resht, Meshed & Tabriz. ≡

Figures on World Population

The population of the world is 1,800,000,000 in approximate figures. By continental divisions, this total is composed as follows: Europe 500 millions, Asia 900 millions, Africa 150 millions, America 220 millions, Oceania 7 millions. According to the *Observer*, which recently made the computations, the figures for Africa and Asia are only more or less exact, as it is impossible to obtain precise information.

It is recognized that the population of the world continues to increase. India and China, already over-peopled, cannot further increase their populations without danger of crisis. Australia, nearly as big as the United States, has a population of only 7,500,000, so that in Australia there is room for millions more. The white population of Australia is 5,426,008.

Japan's population is 77,000,000, which comprises the 56,000,000 living in Japan proper and 21,000,000 living elsewhere.

The population of the British Empire amounts to 447,000,000, which comprises 47,000,000 in the United Kingdom, 22,000,000 in the dominions and 378,000,000 elsewhere, principally in India. Of the 447 millions under British rule, only 65 millions are of the white race.

Germany's population before the war (1910) was 65,000,000. The latest census, 1919, which excluded Alsace-Lorraine but included Upper Silesia, placed the total at 60,000,000.

France of 1921 has a population of 39,200,000, including Alsace-Lorraine. The French census of 1911, when Alsace-Lorraine still was German, gave a total of 39,600,000, so that the war was responsible, mainly, for a big loss.

The following table gives the populations of the principal nations of the white race:—

Russia (including Europe and Asia and excluding Transcaucasia and Ukrania).....	130,000,000
United States	106,000,000
Germany	60,000,000
United Kingdom	47,000,000
Italy	40,000,000
Ukraine (estimated).....	40,000,000
France	39,000,000
Poland	27,000,000
Spain	23,000,000
Roumania	15,000,000
Yugo-Slavia.....	14,000,000
Czecho-Slovakia.....	14,000,000

Revised Cotton Estimates and World Figures

The recent announcement of the United States Department of Agriculture that the crop this year would be 1,800,000 bales larger than the October estimates has depressed the market materially. The total crop will be about 3,989,403,000 pounds or 8,340,000 bales.

In explaining the discrepancy between its earlier estimates and those recently issued the Department said that first reports had been greatly influenced by propaganda put out by growers, indicating much greater reduction of acreage than was actually the case. These figures had to be accepted because of lack of funds to send statisticians into the field. Since July, however, funds have been available for this work, and the result is the revised estimates. Even with this increase, the cotton crop will be the smallest produced in the United States since 1895.

World production of commercial cotton for 1921-22 is placed at 15,593,000 bales, the smallest crop since 1900. The 1920 production was 20,650,000 bales.

Two of the most important cotton producing countries, the United States

Cable Address: PHOTIADES.

Theodore Photiades

82 Wall Street - New York

897 Drexell Building - Philadelphia

STEAMSHIP LINES—Regular, direct steamship lines from New York and Philadelphia to Venice, Trieste, Patras, Candia, Piræus, Volos, Salonica, Chios, Smyrna, Constantinople, Samsoun, Trebizond, Poti, Cons'anza, Varna; also for return cargo.

BANKING—To encourage and facilitate our exporters and importers we offer our banking services, such as the collection of Drafts, Bills/Lading and Commercial Papers

COMMERCIAL DEPT—In conjunction with our Steamship and Finance Departments we are in a position to offer shippers of Levantine goods and importers of American merchandise exceptional cooperation to the benefit of all parties concerned.

Special reservations on our steamers can be obtained for merchandise en route to our offices in America for our very best attention; also special rates quoted to our foreign friends on American goods for export.

OUR MOTTO:

Service, precision, and straight forward business principles

WE EXTEND OUR WHOLE-HEARTED COOPERATION FOR ANY
≡ SERVICES WE CAN RENDER IN ABOVE CAPACITIES ≡

and Egypt, suffered crop "disasters" during the year, the report said, bearing only 91.4 per cent of their total crop of last year, or 5,667,000 bales less than was produced in 1920. The cotton crop in China, South America, Mexico and other countries, whill said to be not so important commercially, was reported smaller than usual. Russia, which immediately before the war produced around 1,500,000 bales annually has practically ceased to grow crops.

Prices for cotton in the United States during 1920 were forced below production costs because of the shutting down of spinning and weaving establishments in the principal manufacturing countries. Reduced consumption, caused by the inability of Russia, Turkey and many other countries in Europe and throughout the world to buy cotton cloth since the war, resulted in the closing of mills all over the world.

American farmers, confronted with a large carry-over last spring, voluntarily reduced their acreage, and the yield was further reduced because "comparatively little fertilizer was used and because of boll weevil ravages over practically the entire belt." The American crop was also seriously hampered by unfavorable weather conditions over the cotton belt. Egypt was affected by similar conditions.

World Wheat Figures

The wheat harvests of the leading wheat-producing countries, as taken from the statistics published in the November report of the International Institute of Agriculture, in Rome, are given below. For countries in the Northern Hemisphere, the figures are for the harvest of 1921, while for countries of the Southern Hemisphere the figures are for the crops of 1921-

1922. The yields are published by the Institute in centals, which correspond to bushels of 60 pounds.

	Acres	Bushels
Bulgaria	2,361,200	42,510,000
Spain	10,349,700	143,205,166
France	12,909,600	315,640,000
England and Wales	1,976,200	69,784,000
Hungary	2,696,600	47,087,166
Italy	11,779,700	192,839,000
Poland	2,982,200	35,282,166
Roumania	5,903,900	97,218,666
Czecho-Slovakia	1,538,400	40,673,833
Canada	23,261,000	329,835,000
United States	56,744,000	740,791,000
British India	25,722,000	250,469,333
Algeria	2,816,100	41,480,166
Egypt	1,458,300	37,010,803
French Morocco	1,468,500	17,466,166
Tunis	1,499,900	8,818,500
Argentina	13,927,100	
Chile	1,138,900	
Union of South Africa	839,400	8,449,000
Australia	9,405,000	146,614,332
Germany	3,562,200	97,865,666

Advantages of Panama Route

The saving effected by ships using the Panama Canal route, as compared with the old all-ocean route, is shown by the Atlantic Coast Shipbuilders Association to have more than justified the hopes of the American government. In pre-war days the cost of maintaining a freighter in commission was approximately ten cents a net registered ton a day. Thus a 10,000-ton steamship cost for maintenance about \$1,000 a day. Its average speed was 250 knots a day. On the trip from New York to San Francisco there is a saving of 32 days, which on the basis of present prices would cost about \$50,000.

CHR. G. BASIOTTI

STEAMSHIP & CHARTERING AGENT
FORWARDING & INSURANCE AGENT
COAL CONTRACTOR
COMMISSION MERCHANT

Telegrams for All Offices :
"BASIOTTI"

CODES
A. B. C. 5th Edition
Scott's 10th Edition
Bentley's

AGENT FOR:

THE ORIENTAL NAVIGATION Co., INC. of New York.
Fast Freight Service between New York—
Greece—Black Sea.

AGENT FOR:

THE KERR STEAMSHIP LINES, INC. of New York.
Regular sailings to the Levant.

AGENT FOR:

THE PACIFIC MAIL STEAMSHIP Co., of Baltimore
and San Francisco.

HEAD OFFICE
PIRAEUS
GREECE

— BRANCH OFFICES —

Greece & Levant

Head Office :

PIRAEUS

Branch Offices :

PATRAS
SALONICA
SMYRNA

Agencies :

VOLO
CAVALLA
CALAMATA

Black Sea

Main Branch :

CONSTANTINOPLÉ

Agencies :

IN ALL BLACK SEA
PORTS

Connected with

Chr G. BASIOTTI Inc.

113-115 Broad Street
NEW YORK.

Roumania

Main Branch :

BRAILA

Branch Offices :

GALATZ
CONSTANTZA
SOULINA

ATTENTION : Piraeus, as Head Office, has a control on the whole organisation; however, applications regarding each district separately, must be made for :

GREECE & LEVANT: to PIRAEUS
BLACK SEA: to CONSTANTINOPLÉ
ROUMANIA: to BRAILA

AGENCIES AT ALL LEVANT AND BLACK SEA PORTS.

The Economic Resources of Palestine

Lecturing at the London School of Economics, Leonard Stein, Political Secretary of the Zionist Organization, said :

«As the combined result of war, misgovernment, and a gradual dessication which has been going on for about two thousand years, Palestine in 1914 was little more than a stagnant backwater. The mass of its population had been apathetic and unprogressive. German and Jewish colonies were efforts on a limited scale which showed what would be possible under more favorable conditions. The war brought a virtual cessation even of such economic activity as there had been, and though under British administration efforts have been made to restore the damage done, Palestine has not yet fully recovered its equilibrium; its economic condition is still in some respects subnormal.

«Palestine is mainly an agricultural country; according to the official statistics for 1919 sixty-one per cent, of the population of western Palestine were engaged in farming, while in Trans-Jordania no other occupation of any importance existed. The principal cereal crops are wheat, barley and millet. The comparative outputs of the last two cereal years in metric tons were : 1919-20 :—Wheat, 45,000 ; barley, 25,000 ; millet, 15,000. 1920-21 Wheat, 75,000 ; barley, 51,000 ; millet, 30,000. These figures relate only to western Palestine ; for Trans-Jordania no reliable statistics exist. Palestine is not self-supporting in the matter of wheat, but imports it from the Hauran. There is an export of the high grade barley grown in the Gaza district, which in 1913 amounted to nearly 9,000 metric tons. There is also a small exportable surplus of millet.

«Palestine produces a considerable quantity of fruit and vegetables; these are mainly reserved for local consumption, except that about a million water melons annually are exported to Egypt, Syria, and other Mediterranean markets. The principal fruit crops are oranges, olives, grapes, and almonds, of all of which there is usually an exportable surplus, the olives being exported in the form of oil and soap. Of oranges about 17,000 metric tons were produced in 1920-21 as against 13,000 metric tons in 1919-20. Before the war there was an export trade which amounted to 450,000 boxes in 1905, and increased to 1,608,000 boxes in 1913. More than half of this went to Liverpool. Vinegrowing and wine production are almost entirely in the hands of Jewish growers. Before the war about a million gallons per annum were produced, eighty per cent being dry red wine. About 6,600 gallons of Cognac were also distilled.

«The coast of Palestine possesses in Haifa a natural harbor of the first magnitude. In 1912 steam shipping which entered and cleared amounted to 1,238 vessels, totalling 1,961,000 tons. For 1919-20 the corresponding figures were 357 vessels and 466,000 tons. For 1920-21 they increased to 720 vessels and 809,000 tons. As the result of the transfer of the Austrian Lloyd vessels to Italy, the Italian flag predominates in Palestine ports, the British flag coming second.

«The present economic development of the country is far from being the measure of its resources. These still remain largely untapped, and Palestine is to-day entering upon a new stage of development owing to the enlightened and progressive administration under British auspices. The Jordan, with its descent from seven feet above sea level to thirteen hundred feet below it, is a latent source of water power. Among other indus-

Cable Address :
 "Theodoridi" Braïla
 "Theodorico" Constantinople

Codes Used
 "WATKINS"
 Twenty-third Edition

THEODORIDI & Co.

BRAILA, GALATZ, SULINA, CONSTANTZA (Roumania)
 and CONSTANTINOPLE, Tehinili Richtim Han
STEAMSHIP OWNERS & SHIPPING AGENTS

*Mr. A. THEODORIDI, Director at large of the American Chamber
 of Commerce for the Levant in Roumania.*

MANAGERS "MARITIMA"
 OF THE

Soc. Anon. Romana de Navigatiune, Braïla.

COAL IMPORTERS :

The **ANGLO-ROUMANIAN TRADING Co., Ltd.**

BUCHAREST, 5 Strada Stavropoleos

Cable Address: TRADING-BUCHAREST

Société Générale des Pays Danubiens pour le Commerce et d'Industrie

BUCHAREST, 5 Strada Stavropoleos

INDUSTRY :

"LABOR" Soc. Anon. Româna pentru Industrie si comert,
 BUCHAREST, 91 Strada Regala

KEUN, LAVINO AND COMPANY, SMYRNA

Merchants. Steamship and Insurance Agents.

GENERAL AGENTS IN THE LEVANT FOR :

The United American Lines, Inc., of NEW YORK

The Alliance Assurance Co., Ltd., of LONDON

(Fire and Life)

SPECIALTIES: Emery Stone, Chrome Ore, Opium, Wool, Olive Oil
 and Soap, Nut Galls, Licorice Root, Gum., etc.

LARGE EXPORTERS TO THE UNITED STATES.

A.B.C. Code 5th Edition

Adresse Télégraphique : TARANTO-SMYRNE.

M. & J. TARANTO

SMYRNA (Asia Minor)

French Firm Established in 1888.

Packer and Exporter of DRIED FRUIT

Sultanas, Black and Red Raisins, Figs, Almonds, Pignolias, Walnuts, Hazelnuts, Pistachio Nuts, Dried Pear.

VALLONEA FOR TANNERIES, Gallnuts, Tragacanth Gum, Mastic, Yellow Berries, Wax, Salep, Soapwort,
 Olive Oil, Sesame seed, Millet-seed, Hemp-seed, etc., etc.

SPECIAL BRANCH FOR

Import, Representation, Commission, for all kinds of articles.

P. S. Correspondence invited.

tries, it should be possible to develop fruit preserving, tomato canning and the extraction of essential oils.»

The Near East

Holidays

The New York Journal of Commerce has the following to say about holidays:

"This plague of holidays has reached an extreme in some foreign countries, where the interruption to regular avocations has gone so far as to constitute an actual menace to stability of trade and commerce. It has, of course, reached no such proportions in the United States, but it has gone far enough to constitute a real evil and call for correction. That may in part be provided for by a disregard of the so-called minor holidays, "business as usual" being the maxim of executives in general. This, however, does not help the legal aspects of the case, and there should be a movement for legislative enactment which would substitute mere voluntary observance for the compulsory suspension of financial and other activities which is involved in the present method of celebration."

Water Power Projects in the United States

The production and use of hydro-electric power in the United States is destined to be one of the most important industrial facts of the future. In the sixteen months following the passage of the Federal Water Power Act of 1920 there were filed with the commission 185 applications for preliminary permit and 85 applications for license to develop water-power, 270 in all. After deducting conflicting applications and those rejected or withdrawn, totals stand at 11,060,-

000 primary and 5,766,000 secondary horsepower of estimated installation. This is twice the water horse-power which has been developed in the United States to date, and exceeds the combined potential waterpower resources of Norway, Sweden, Finland and the Arctic and Baltic drainages of Russia. It is seventy per cent greater than the combined resources of France and Italy. It is from five to six times greater than the aggregate of all applications filed with the Federal Government during the preceding fifteen years. To complete the projects applied for will require capital exceeding \$2,000,000,000. The collateral expenditures for distribution systems, for customers' installation, and in accessory industries, will be several times greater.

Industrial ventilation is fast becoming the accepted rather than the unusual practice and it has undoubtedly come to stay in the modern industrial world, because our health, happiness and efficiency depend largely upon the degree of purity of the air we breathe. The reduction of lost time due to poor health and the increase of productivity to a maximum by providing proper conditions, are factors included in practically all of the larger schemes of production today. The human body being more or less a miniature furnace, the food which we eat supplies the fuel for this furnace and the resultant heat must be dissipated from the body in some way after satisfying bodily needs. The effectiveness of any general system of ventilation is determined by its proficiency in removing the excess heat from the body.



Advertise in "LEVANT
TRADE REVIEW"

BROWN, WELLES & Co., INC.

CONSTANTINOPLE - NEW YORK

GENERAL AGENTS FOR TURKEY

OF THE

NATIONAL FIRE INSURANCE CO.

OF

HARTFORD, CONN., U. S. A.

Gumushlu Han, II

No. 19 rue Voivoda

Galata, CONSTANTINOPLE

Telephone: Pera 2631. Cables: "BROWNWELES-CONSTANTINOPLE"

THEO N. CURMUSI

Established in 1890

Steamship, Forwarding and Custom House Broker

Director of the American Chamber of Commerce for the Levant

General Agent of the NAVIGAZIONE A VAPORE
TRIESTINA of TRIESTE

Regular Passenger and Cargo service from

PATRAS to NEW YORK

THROUGH TICKETS & Bs/L ISSUED

Correspondent of the AMERICAN EXPRESS COMPANY, Forwarding Dept.

PROPRIETOR OF BONDED STORES

Offices: TCHINILI RIHTIM HAN, GALATA QUAY.

Telephone: Pera 604.

Private Telephone: Pera 2907.

Telegrams: CURMUSI CONSTANTINOPLE.

PETROLEUM

By CARLOS B. STONE

Mineral oil, or petroleum, was used in Nineveh and Babylon at about 2000 B. C., and for centuries seepages of oil have been utilized by various peoples in Asia. The development of oil fields upon a large scale, however, is very recent. Mexico and the United States are two of the leading producers of oil; but the real exploitation of the Mexican fields commenced as late as 1907, and the year 1859 was the beginning of the exploitation of the great Appalachian fields, an area covering the States of New York, West Virginia, Pennsylvania, Kentucky, Tennessee, and eastern Ohio. Other important American fields are those of western Ohio, Indiana and Illinois; southern Kansas and Oklahoma; the Gulf region of Texas and the coast range in California. In addition the states of Utah and Wyoming have given indications of considerable future supplies.

The total output of the world in petroleum, up to 1919, was approximately 7,000,000,000 barrels, of 42 gallons each in capacity. Of this output, the United States was responsible for nearly 4,000,000,000 barrels, or about 57 per cent. During the past two years American consumption of petroleum has been more than six times that of the year 1901, an increase due largely to the wider use of gasoline. In 1900 the production and consumption each equalled about 65,000,000 barrels. By 1919, the production had increased to nearly 380,000,000 barrels, and the consumption to about 375,000,000 barrels.

Due to the dramatic nature of oil operations, there is a common tendency to consider prospecting for oil a supreme game of chance. While

it is true that chance must necessarily play a large part, yet, as in mining, the probability of success is greatly enhanced by the application of scientific methods. The existence of petroleum in the mineral strata of a region is not invariably indicated by surface manifestations. Where evidences are present, they may take the form of seepages, vegetation, asphalt deposits, emanation of gas, or bituminous outcrop. In the case of large seepages, the oil can be seen trickling out. Seepages which have continued for long periods, form deposits of asphalt, such as those in Trinidad. The seepages are usually accompanied by gas.

There are certain indications in prospecting for oil that are significant. Thus signs of oil in beds of impermeable strata with strong gas, are regularly favorable; but light shows in porous beds, with water or brine, are always unfavorable, as is a show of hot water, with neither oil nor gas. A show of filtered oil with gas is favorable as a rule, but a show of brine is usually unfavorable. Under all doubtful circumstances it is very desirable to study all of the evidence, and even to sketch the stratification of the region, before commencing drilling. It is often helpful to consider the similarity of the locality in question to others in which oil has been found. Numerous successful fields have resulted from such geological investigation. In fact, surface indications, as seepage and gas, are often disregarded in favor of a location to which geological evidence directs.

The chief aim in drilling a prospect hole is to tap the oil at a minimum depth, and so at a minimum cost. The question of location is doubly important when funds will only warrant the drilling of one or two holes. Holes vary in depth according to con-

ditions; but 500-1,500 feet would include many cases in which the question of topography would determine the depth. In all instances the determination of the dip is most important. Other considerations, such as nearness to water, are of considerable import in selecting a location, but they should not be permitted to overweigh that of the most favorable place for striking oil. Many productive fields have resulted from "wild-catting." A slight indication of oil has been apparent, and companies have been organized for drilling; yet, needless to say, the failures have greatly outnumbered the successes.

As a result of the need for attaining greater depths than were feasible by the older methods the use of steam and horse power was developed in drilling for oil. Perhaps the greatest innovation, however, has been the employment of pipe, or casing, to prevent filling of the hole by the caving in of earth, as well as to keep water away from the oily sand. The casing used is composed of iron or steel, sizes and kinds being subject to different conditions as met with in various localities. Another problem is constituted by water which, owing to its greater specific gravity, displaces gas and oil. The exclusion of water is most simply attained, where feasible, by inserting a line of watertight casing, with its bottom implanted below the lowest water-bearing strata and above the top of the productive measures. The water is thus shut off from passing below the casing shoe. Under any conditions the element of chance is ever present in drilling for oil, and lack of care or an unavoidable accident may entail the plugging of the hole, with the loss of months of labor and expense. The Lake No. 1 well in West Virginia had been drilled to

a depth of 7,589 feet when the cable parted about three-fourths of a mile below the surface.

The two methods of drilling in common use are the standard, or cable tool method and the rotary. With the former, a walking beam is used to churn the hole by tools which hang from a line attached to the end of the beam. The rotary method employs a bit which, fastened to the end of a line of pipe turned mechanically at the surface, scrapes away the bottom of the hole. The process is equivalent to that employed in making test borings for tunnel excavation, with diamond or shot drills. Thin mud is propelled down inside the piping by a pump, and out through the opening at the lower end. It then returns to the surface outside of the pipe, carrying the cuttings made by the bit with it. The drilling is continuous, subject to the necessity for "pulling-up" to change the bit. The cable-tool method is usually preferable where the strata is hard, but with loose or soft material the rotary is better, as a rule. The latter method necessitates greater expense in fuel, labor and maintenance of machinery, but under proper conditions, faster progress can be made than by the cable-tool plan. The cost of drilling under either system varies necessarily, but about \$10,000 per well in Pennsylvania, where the oil is near the surface, has been an average; while in California, where soft sand must be dealt with, there has been an approximate average of \$100,000 per well. Naturally, the cost per well is dependent upon various considerations, such as depth, etc. With both these methods, there has been in the past considerable waste of natural gas. The problem has received special attention and a plan for its solution has been devised by which clay, mixed with water, is

pumped into the well, thus overcoming the gas pressure and preventing wasteful gas emanation.

Flowing wells, or "gushers", occur in most of the important fields. The flow is sometimes so violent as to demolish the rig and do serious damage to the casing in the well. The pressure of the gas propels the sand out with such force that it has been known to cut through thick plates of steel in the course of several hours. In instances in which a heavy flow has been unexpected and no preparations for capping the well have been made, it is very difficult, if not impossible, to gain control. Under such conditions the waste of oil is appalling. The Cerro Azul No. 4 well in Mexico gushed a column estimated at a million barrels a week, and 600 feet in height, before it was brought under control; and the famous Lakeview well in California gushed continuously for eighteen months at the rate of 30,000 barrels a day, although of course only a portion of the flow was wasted. In order to reduce waste to a minimum until control has been achieved, boiler shells on skids, or timbers reinforced by plates of steel, are placed over the hole at the floor of the derrick, being anchored to the derrick sills by wire slings. The oil is deflected to sumps of earth which have been excavated near the derrick, and when the flow has lessened an attempt is usually made to control it, and to connect up the gusher with pipe lines. There is a belief on the part of most operators that it is unwise to check the flow altogether, as the subterranean channels might become clogged as a result, and the well be ruined. Occasionally a flowing well catches fire, and if it is not capped it is often very difficult to extinguish the blaze.

When a well has ceased to flow, or when one cannot be made to flow at

all, upon sand being first reached, by reason of a low gas pressure, pumping is resorted to. This method of pumping is the usual means by which oil is extracted in most fields. The pumping is effected by a deep-well pump which is lowered on tubing to a depth sufficient for submersion. In the case of wells with a light production the pumping is often done by running the walking beam as the oil collects. In regions where the strata is hard, as with the limestone and sandstone of the central and eastern fields of the United States, a greater production is sometimes secured by blasting. If, however, a well is flowing moderately, the oil can often be pumped to storage. The pipe lines for this purpose are laid in trenches and buried deep enough to insure protection from cold or heat. The usual custom is to gauge each well separately for its production and tanks are therefore put up at the respective wells, the petroleum being measured in this way prior to being pumped to storage. It is perhaps not generally realized that in the United States the area from Texas and Oklahoma, up through Missouri, Illinois, Indiana and Ohio to Pennsylvania, New Jersey and New York is undermined with a complete system of pipe lines for the conveyance of petroleum. These lines total nearly 30,000 miles in extent, with pumping stations at about every 40 miles. In fact, this method of transportation is one of the chief causes underlying the phenomenal growth of the oil industry in the United States.

The tanks located at the wells are usually from 25 to 100 barrels in capacity, the number at each well depending upon the production. If the storing of the oil is essential, or if a gusher is expected, large tanks with capacities of 55,000 barrels are con-

structed; but such are not necessary when the oil is being shipped continually, in comparatively small quantities. When a tank is full the purchaser, or gauger of the purchasing company, samples the oil at a number of leves, after which the samples are tested. Should they reveal more than 3 per cent. of water and base sediment, the product is held to be unsatisfactory. Oil evaporates excessively after production, particularly in a warm temperature; prompt shipment is therefore desirable. Oil steamers are equipped with tanks and pumps, for the storage and discharge of their cargoes. Oil is also transported by rail in tank cars specially constructed for the purpose. Where pipe lines lead to piers, this mode of transportation for shipments which are to be made by water is of course unnecessary.

Oil refining is a mammoth industry in itself. An estimate of the number of refineries for petroleum in the United States in 1916 placed the total at 302, with a daily total capacity in excess of 1,000,000 barrels. These refineries represented an estimated investment of over \$428,000,000, exclusive of the amount invested in pipe lines, which represented, at a conservative figure, \$200,000,000. Much experimentation has been effected in refineries with a view to the greater precipitation of gasoline from crude petroleum, or some one of its products. The Burton process, as employed by the Standard Oil Company, is an example.

As for the future aspect of the oil situation, certain facts cannot be evaded. It is now apparent that the limit of production in the United States is being approached, and that, even allowing for the discovery of fields, a early decline in production is imminent. It should be understood that even the maintenance of

any given and annual production demands that an increasing number of wells be drilled; when a certain stage has been reached such an increase is impossible because of the large number of wells that would have to be drilled to maintain it, and because each new field which is discovered lessens, by so much, the chance of new disclosures. Although it is perhaps not fully appreciated by the general public, the fact is nevertheless realized by the industry itself that if there should be a cessation of a considerable new production for a year or so, the situation would become immediately critical.

The increasing demand for petroleum and for the oils which are its products, such as gasoline, benzine, kerosene and naptha, and the growing use of oil for fuel and lubrication, are enhancing this condition; so that at the present rate of consumption a curtailment of the American supply is estimated as being not far distant. Investigations and surveys have been made by the Bureau of Mines and the Geological Survey, and it has been computed that there are about 6,000,000,000 barrels of oil which are still under ground in the United States. However, such an estimate is necessarily speculative, and even at the present rate of consumption this reserve supply would be used up in some fifteen years or so. The fact must be faced that in sixty years the United States has used up about 40 per cent. of its oil supply which is evidently available.

Indeed, it is probable that the question of oil will play an important part in the international relations of the next twenty years. Following the example of Great Britain, the United States navy is now employing oil in the main as a fuel, a procedure which is being extended to include the merchant marine. American ap-

preciation of the necessity for guaranteeing a future supply has been somewhat belated, as compared with some other nations, but the need for taking measures to this effect is now realized. The large fields of the future, outside of the United States, are supposed to be in the Near East, South America, Mexico, and perhaps in the Far East and in Africa.

Dun's Review

Mother-of-Pearl Industry in Bethlehem

By Addison E. Southard, Consul at Jerusalem

Bethlehem, in Palestine, is the center of a mother-of-pearl industry which supplies beads, rosaries, inlaid work, carvings, and miscellaneous ornaments to all parts of the world. The major part of the raw material used is imported from the United States and an appreciable share of the finished product finds a market in the United States and in other countries of North and South America.

Of the rosaries made in Bethlehem from mother-of-pearl beads, combined with silver or white-metal chains and wire, about one-third of the total product is exported to North and South America and the remainder goes principally to European countries of which, before the war, Austria and Germany received large quantities. During the year 1913 there was invoiced at the American consulate in Jerusalem for shipment to the United States, a total of \$19,207 of Bethlehem mother-of-pearl rosaries of the first and second qualities. For the calendar year 1920 the total value invoiced amounted to \$31,846. Only shipments valued at \$100 or more require consular invoices, and it is probable that during these two years

there were as many rosaries and beads taken or sent to the United States in small quantities as were invoiced at the consulate.

The long strings of beads known as necklaces are not so important in the export trade as are the rosaries. A great many necklaces are sold to tourists by local curio shops. Considerable quantities of tiny beads are made and sold in strings or bunches to be used for various trimming purposes. These beads are in demand by the Moslem women of northern Africa, particularly in Algeria where they are used as trimming for articles of clothing. Beads of various sizes, usually in the round form, are made into small strings of «play» beads. A great many beads in this form are sold to Moslems and certain classes of Levantine Christians. Amber, glass, and other materials are used for these «play» beads, but the use of mother-of-pearl is increasing.

The refuse, broken pieces, and butt ends of mother-of-pearl shells, used by the button factories in the United States and other countries, supply most of the raw material used in the Bethlehem bead and rosary industry. For the larger carved pieces requiring whole or nearly whole shells, the raw material is obtained directly from the Red Sea, India, and Australia.

The waste from the button factories is imported in quantities estimated at about 20 tons per month. Most of this waste is obtained from the United States where a greater supply is available than in other countries. There are various grades and qualities of this waste, and the prices at which the last lots were bought for shipment to Bethlehem varied from 3 to 10 cents per pound f. o. b. New York.

The silver and white-metal fine chains and wire are a specialty of French manufacturers and the Beth-

lehem firms say that this source of supply is probably as satisfactory as could be found elsewhere and has the advantage of a long-established connection. The comparatively small quantity of muriatic acid used for polishing purposes is also obtained from France. The coarse files used are obtained second-hand in Europe and can be used and resharpened many times in Bethlehem.

It appears that the Bethlehem people do not favor machinery. Owing to the fact that they have been able to compete successfully and profitably with the machine-made product of France and other countries, they are satisfied with their present methods of hand labor, at least so long as the labor supply is sufficient to meet the demand for the finished product.

Railway Survey for Persia

In the last two years extensive surveys for railroads in Persia have been made by Mr. Frank Grove, in behalf of the Persian Railways Syndicate and Messrs. S. Pearson and Son.

During 1920 Mr. Grove journeyed from [railhead at Quraitu, on the Mesopotamian-Persian border, through Kerind, to Kermanshah, Hamadan, and Kashvin and subsequently to Teheran. Last year he travelled to Ispahan from Hamadan, via Sultana-bad, [and from Ispahan southwards through the Bakhtiari country and the Karun gorges to the oilfields and Ahwaz.

A survey and estimate has been completed for the construction of a metre-gauge railway from Khanikin to Teheran, as agreed with the Persian government early in 1920. Under this arrangement the terminus of the metre-gauge line running north-east from Bagdad will be at Khanikin, and not at Quraitu, as at present, which would

mean the abandonment of a length of 23 miles. An economic reason for the sparse population of the great plateau through which the line would pass is the lack of transport facilities for areas enjoying good harvests to send the surplus produce to districts not far off where grain is badly needed.

Cheap railway transport would immensely improve the economic situation. From Hamadan to Teheran the railway would be confronted with few engineering difficulties. The distance of the line from the Irak frontier to the capital will be 333 miles, as compared with the present overland journey of 680 miles from the Gulf port of Bushire. Goods ordered from England now take on an average nine months to deliver in Teheran from the date of dispatch. Motor transport has not yet proved a serious competitor to animal transport in Persia, but Mr. Grove expects it will develop when gasoline becomes cheaper and more efficient workshops are established.

United States Trade in November

Exports during November were the lowest for any month during 1921, while imports were higher than at any time during the previous six months, according to monthly foreign trade reports issued by the Commerce Department, Washington.

During November, exports totaled \$295,500,000, as compared with \$343,500,000 in October and \$676,500,000 in November, 1920, while imports aggregated \$211,300,000, as compared with \$188,000,000 in October and \$321,000,000 in November a year ago. The export excess amounted to \$84,200,000 in November as compared with \$155,569,517 in October and \$355,524,931 in November, 1920.

Trade of Greece with United States

During October, 1921, the United States imported merchandise from Greece valued at \$1,786,089, while that for the same month of the preceding year was valued at \$1,016,312, according to statistics compiled by the Statistical Division of the Bureau of Foreign and Domestic Commerce. For the 10 months ended October, 1921, \$19,519,836 worth of merchandise was imported from Greece, while that imported during the corresponding period of 1920 was worth \$17,883,044. The United States exported to Greece during October, 1921, merchandise amounting in value to \$671,839, while exports for October, 1920, were valued at \$1,410,089. A decrease is shown in exports from the United States to Greece in the first 10 months of 1921, as compared with the corresponding period of 1920, the exports for the two periods amounting in value to \$27,772,391 and \$31,703,846, respectively.

Progress in Palestine

A report on the Civil Administration of Palestine, recently issued by the high commissioner, Sir Herbert Samuel, shows vigorous progress in the country's reconstruction. An educational scheme has been adopted whereby the people in a town or village needing a school "are invited to provide a suitable building and keep it in repair," the government defraying, out of general taxation, the salaries of the teachers and the other costs of maintenance. New schools at the average of one a week have been opened under this system. In conjunction with this, a training school has been started for men and women, and peripatetic teachers are sent out by the government to work

among the Bedouin tribes in the Beer-sheba district. A number of voluntary schools are encouraged and given some financial aid.

Malaria and trachoma are the two greatest problems of the public health department; it has been found that from 60 to 95 per cent of the children of Palestine are affected by trachoma. An anti-malaria commission has provided thousands of villages with quinine, has seen to the oiling or closing of infectious wells and made plans, now in train of execution, for draining swamps and combatting the disease in other ways. Hospitals, clinics and dispensaries have been established where formerly there were no such institutions. In dealing with the problem of assuring Jerusalem a good water supply some ancient reservoirs, called the Pools of Solomon, possibly dating back to King Herodes, 4 B. C., have been used. Plans for beautifying the country by cultivation of trees are in progress.

The Survey

Concessions at Beirut for Sale

The gas and electric systems and franchises of Beirut are for sale. The combined enterprise includes a 400-kilowatt generator plant; a gas plant not now operating, and real estate. The electric franchise is for 82 years, and the gas franchise is for 60 years.

What was formerly considered dross in the mines of the Coalmont Collieries in British Columbia has been discovered to be pure amber, the first deposit of the kind ever found on the North American continent. It was formerly, believed to be resinite. There are large quantities of the amber,

Entrepôt Frigorifique Gigantesque

Le plus grand établissement frigorifique au monde a été mis récemment en opération par un des grands abattoirs de Chicago. Il occupe une construction de neuf étages et peut recevoir vingt et un mille tonnes de viande. Cet établissement est décrit comme suit dans *Power Plant Engineering*.

“Sa construction a exigé environ 5.000 tonnes d’acier, et près de 3.500.000 pieds de liège pour isoler les diverses chambres frigorifiques. A l’exception du premier étage et d’une partie du second, employés pour les expéditions, le bâtiment tout entier est composé de chambres frigorifiques et de congélation.

“Le matériel nécessaire pour la réfrigération et la fabrication de la glace pour les wagons frigorifiques a une production normale équivalente à 750 tonnes de glace par jour et un maximum d’environ 1200 tonnes. La salle des machines est située au huitième étage et les condenseurs à l’étage au dessus. Ce matériel se compose de cinq groupes de 150 tonnes, trois pour la réfrigération et deux pour la production de la glace, lesquels sont divisés en deux sections, une contenant les machines réfrigérantes et une contenant les machines à glace.

“Les murs du neuvième étage sont construits de façon à le protéger contre la chaleur du soleil, tout en permettant une circulation libre de l’air à l’entour des condensateurs. L’eau employé pour le refroidissement est utilisée ensuite pour le lavage de la laine.

“La circulation de la saumure est assurée par trois pompes à vapeur centrifuges d’un débit de quatre mille litres. Dans les conditions de fonctionnement actuelles, il est possible de maintenir le système de saumure à une température très basse. C’est ainsi que le thermomètre à la sortie

de la saumure enregistre une température de -13 à -14 degrés Fahrenheit. En raison de cette basse température on se trouve dans l’obligation de faire usage d’une solution contenant environ 27 pour cent de chlorure de calcium dont la température de congélation est de -33 degrés Fahrenheit.

“Plusieurs des étages sont divisés en deux sections, auxquelles on a donné le nom de sections de congélation et sections d’emmagasiner. Les sections de congélation sont divisées en un grand nombre de petites chambres. La méthode employée consiste à prendre la viande qui a été maintenue à une température de 36 à 38 degrés Fahrenheit pendant quarante-huit heures et à la placer dans les chambres de congélation où elle y reste soixante-douze heures à une température de -10 à -20 degrés Fahrenheit. La viande est ensuite envoyée aux salles d’emmagasiner où la température est de -0 à -12 degrés Fahrenheit. La viande est distribuée aux divers étages par quatre élévateurs électriques situés aux quatre angles du bâtiment. Elle est envoyée à la salle d’expédition par une glissière en spirale située au centre de l’établissement.

“Une des caractéristiques intéressantes du système adopté est la méthode employée pour réduire au minimum les pertes d’ammoniac susceptibles de se produire lorsqu’on purge les appareils. Pour ce faire on fait usage d’un économiseur qui joue alternativement le rôle d’absorbeur et d’alambic. Les extrémités du serpentín comportent deux connexions, une pour l’eau et l’autre pour la vapeur. On remplit le cylindre d’eau de façon à recouvrir les serpentins et on purge les différentes parties du système avec cette eau par l’entremise d’un tuyau perforé au fond de l’économiseur. Tout gaz ammoniac se trouve absorbé par l’eau, les autres gaz s’élèvent à la partie supérieure du cylindre et s’é-

chappent par une valeur prévue à cet effet. Lorsque la liqueur est devenue concentrée, on remplace l'eau des serpentins par de la vapeur et l'ammoniac est redistillé dans le système.

Constantinople Telephone Concession

The discussions between the Constantinople Telephone Company and the Turkish government, concerning the indemnities claimed for the requisition of the telephone system during the war, have been concluded. The Company gives up all its claims in return for the right to prolong for five years the extra expenses of installation and the extension of its concession to 70 years.

Attendance at American Colleges in Constantinople

The attendance at Robert College this year is 582, of whom 132 are in the College department, 385 are preparatory students, 61 engineering, and 4 graduate; 283 are boarders, 299 day-scholars; 234 are Greeks, 167 Armenians, 71 Turks, 37 Jews, 22 Bulgarians, 13 Albanians, 4 Americans, 3 Persians, 2 Syrians, 2 Georgians, 1 each Roumanian, Arab, Swiss, Croatian, Yugo-Slav and Circassian.

The attendance at Constantinople Woman's College is 415; College 190, preparatory 182, medical 19, nurses' training 24; 283 are boarders, 132 day scholars; 123 are Greeks, 120 Armenians, 45 Turks, 41 Russians, 26 Jews, 13 Bulgarians, 11 British, 8 Americans, 6 Albanians, 6 Serbians, 3 Persians, 3 Syrians, 2 Arabs, 2 Kourds, 1 each Georgian, Hungarian, Italian, Roumanian, Russo-Armenian, and Tartar.

Transportation in Anatolia

By a convention signed between the Bagdad Railway and the Adana line, through transportation will follow the lines of Konia and Adana-Mersine. Freight cars will be transferred from one line to the other at the station of Yenidje and passengers will there change trains. For transportation from Mersine to Konia one must apply to the Direction of Exploitation at Adana and for that from Konia to Mersine to the Direction of Exploitation at Konia.

Repairs on the railway from Kars to Erzeroum have been completed and traffic between Anatolia and the Caucasus has accordingly been revived. Rolling-stock to replace what is lacking has been ordered in Russia. Important quantities of petroleum coming from Bakou have already reached eastern Anatolia by rail, and in exchange cereals have been sent to Armenia.

Trade of Egypt with United States

The United States imported merchandise from Egypt during October, 1921, valued at \$1,992,901, while the imports for the corresponding period of the preceding year amounted to only \$5,638, as is shown by statistics compiled by the Bureau of Foreign and Domestic Commerce. For the ten months ended October, 1921, the United States imported merchandise from Egypt valued at \$12,357,713, while imports for the corresponding period of the preceding year were valued at \$93,678,527. The exports from the United States to Egypt during October, 1921, amounted in value to \$918,373, while those for October, 1920, were worth \$2,235,382. For the 10 months ended October, 1921, exports from the United States to Egypt were valued at \$11,673,155, while those for the corresponding period of the preceding year were valued at \$32,816,628.

BULLETIN DES OFFRES COMMERCIALES

Reçues aux Consulats des Etats-Unis d'Amérique
à Constantinople, Athènes et Salonique
et à la Chambre de Commerce.

ADRESSES des Maisons Américaines.	Nature de l'Offre.
C. G. Blake Co., Inc., 25 Beaver Street, New York City.	Houille.
Thomas G. Grove & Co., 52 South Third Street, Philadelphia, Pa.	Déchets de coton. Désire représen- tant.
Empire Notion Co., 72-74 Madison Avenue, New York City.	Accessoires pour tapissiers. (1)
Evinrude Motor Co., Inc., Milwaukee, Wis.	Moteurs marins et dynamos.
General Eclipse Co., Danielson, Conn.	Encriers en verre et encre en tablet- tes. (1)
Goodell Pratt Co., Export Department, Greenfield, Mass.	Toutes sortes de petits outils.
Gratham Mercantile Corporation, 56-58 Pine Street, New York City.	Exportateurs de grains, riz, farine, sucre, et articles alimentaire. Dési- rent représentant.
E. Greenfield's Sons, Fifth Avenue Building, 5th Avenue & 23d Street, New York City.	Chocolats et confiserie.
William Haim, 1204-1210 Broadway, New York City.	Désire acheter des fourrures, des peaux de moutons et de chèvres, de la laine.
Krause Hardwood Dimensions Co., Memphis, Tennessee.	Noyer Américain et autres bois en toutes dimensions. (1)
Lumnus Cotton Gin Co., 24 State Street, New York City.	Machines à égrainer le coton.
Perry & Co., 359 Madison Avenue, New York City.	Exportateurs de houille. Désirent re- présentant.

C. Smith Manufacturing Co.,
Dayton, Ohio.

Stromberg Carlson Telephone Mfg.
Co., Rochester, N. Y.

Spécialités de réclame à bon marché.

Téléphones, centrales téléphoniques,
fils, etc..

(1) Des catalogues sont à la disposition de Messieurs les commerçants au Consulat Général des Etats-Unis d'Amérique à Salonique.

TRADE OPPORTUNITIES

THE AMERICAN CONSULATE GENERAL AT CONSTANTINOPLE TAKES PLEASURE IN ANNOUNCING THAT ALL COMMERCIAL HOUSES WITHIN ITS TERRITORY DESIRING TO ESTABLISH RELATIONS WITH AMERICAN EXPORTERS OR IMPORTERS OF ANY KIND OF MERCHANDISE WHATSOEVER ARE INVITED TO COMMUNICATE TO THAT EFFECT WITH THE CONSULATE GENERAL, WHICH WILL FORWARD THEIR ENQUIRIES TO INTERESTED AMERICAN HOUSES THROUGH THE BUREAU OF FOREIGN AND DOMESTIC COMMERCE OF THE DEPARTMENT OF COMMERCE, WASHINGTON.

School Children in U. S.

There are 21,370,000 children at present attending school in the United States. This is more than an army of school children; it is enough to form the population of a good-sized nation by itself. When King Albert of Belgium visited the United States, shortly after the Armistice, nothing that he saw impressed him so much as the attention paid to public education. In every city that he visited he observed that schools were among the most conspicuous of the public buildings pointed out to him.

Reconditioning the Leviathan

On the basis of the lowest bids received it will cost the United States Shipping Board \$6,697,303 to recondition the Leviathan, ex-Vaterland.

The Newport News Shipbuilding & Dry Dock Company entered a bid of \$5,595,000 to cover the general specifications for rebuilding the interior of the vessel and one of \$515,000 for repairs to machinery. On the third set of specifications, that for stewards' supplies, John Wanamaker's bid of \$587,303.20 was the lowest.

The Constantinople Market

The month of January has brought no relief in the general situation of the Constantinople market. The depression which characterised the end of 1921 has continued and grown worse. The suspension of payments of the Banca Commerciale di Sconto has had an unfortunate effect, owing to the numerous transactions in which the bank was interested. The Batoum market which seemed to give evidences of opening activity has been disappointing. Prices have dropped and there is little business.

The Angora government has issued a circular, a translation of which reads :

"Because of the lack of direct communication with European commercial centers, our merchants have been obliged to negotiate through the medium of Constantinople. It is logical that our commerce has felt the recent commercial crisis in Constantinople and is suffering under it. The establishment of direct relationship between our merchants and the foreign markets being indispensable, the municipalities and merchants are invited to assemble under the presidency of their governors to study measures for obtaining the desired results."

The aim of the Angora government is to be free [from the commission merchants and foreign intermediaries who control the market at Constantinople. Commerce will be carried on through the ports of Samsoun and Mersine to the exclusion of Constantinople, unless different counsels prevail.

The exchange situation is still very unsettled. Dollars have been going down, selling on the last day of January at 143 piasters instead of 160, as a week earlier. Sterling dropped 100 points in a few days and sold at the end of January at 600 piasters.

This fall in exchange is not due to any healthy movement of commerce, but rather to stagnation which cannot be much overcome until the state of war in Asia Minor is brought to an end.

PERSONALIA

Paul L. Edwards, Trade Commissioner of the American High Commission reached Constantinople on January 28th.

H. B. Barton, Assistant Trade Commissioner of the U. S. Department of Commerce, is at his post in Tiflis, Caucasus.

S. T. Toby, president of the Rainier Valley State Bank, Seattle, Washington, has just visited Constantinople on a journey in the interests of the Seattle Chamber of Commerce.

S. D. Winkler, representing the Midland Trading Corporation, 47 West street, New York City, has visited Constantinople.

U. E. Guerrini, manager of the American Foreign Insurance Association, has returned to Constantinople after a three months trip in Italy and Spain.

F. L. Harley, representative of the Washburn.—Crosby Co. has returned to Constantinople after a week spent in Smyrna.

Dr. J. A. Le Clerc, Trade Commissioner of the U. S. Department of Commerce, is in Constantinople, on his tour of Europe to study the food situation. Dr. Le Clerc is making a special investigation of the consumption of cereals and its relations to the export of American corn products.

Major R. C. Miner is in Constantinople, representing the U. S. Maize Products Export Association of New York and Chicago.

TABLES OF WEIGHTS AND MEASURES

Weights

Turkish	English	Metric
1 oke (400 drams)	2.8264 lbs (pounds)	1.282 kilogram
1 batman (6 okes)	16.958 lbs	7.692 kgs.
1 kantar (44 okes)	124.3616 lbs	56.4 kgs.
1 tcheki (176 okes)	497.446 lbs	225.6 kgs.
English	Metric	Turkish
1 lb	.4536 kg	.3538 oke
1 cwt (112 lbs)	50.8028 kgs.	39.6263 okes
1 ton, long (2240 lbs)	1016.047 kgs.	792.527 okes
Metric	Turkish	English
1 kilogram	.78 oke	2.2046 lbs
1 quintal (100 kgs.)	77.9845 okes	1.968 cwt (hundred weight)
1000 kilos	779.845 okes	2204.6 lbs
1 muscal (attar of roses)	1½ drams	74.171 grains
1 ounce (oz.)—Apothecary	480 grains	31.1035 grammes ;
1 „ Avoirdupois	—	28.34954 grammes

Linear Measures

Turkish	English	Metric
1 endazeh, pic (silk)	25.555 inches	.64908 metre
1 arshin (cloth)	26.96 „	.68477 „
1 arshin (old, land)	29.8368 „	.7577 „
1 arshin (new)	39.3709 „	1.00 „
English	Metric	Turkish
1 yard (3 feet or 36 inches)	.91438 metre (new arshin*)	1.40868 endaze, 1.33524 arsh. cloth; 1.20672 old arsh.
1 mile (5280 feet)	1.6093 km.	2123.8272 old arsh.
Metric	Turkish	English
1 metre (new arsh.)	1.46 arsh. (cloth); 1.31978 old arsh.	39.37 ins.
1 kilometre	1,319.78 old arsh.	1.62137 mie

Square Measures

Turkish	English	Metric
1 sq. arshin (old, land)	6.1794 sq. ft.	.5741 sq. m.
1600 sq. arshins or	9887.04 sq. ft. or	918.56 sq. m. or
1 old deunum	.2269752 acre	.36743 new deunum**
English	Metric	Turkish
1 sq. in.	6.4516 sq. cm.	.001123 sq. arshin
1 sq. ft. (144 sq. ins.)	.092903 sq. m.	.1618 „ „
1 sq. yard (9 sq. ft.)	.836126 sq. m.	1.4563 „ „
1 acre (4840 sq. yds.)	.40468 hectare	4.4054 old deunums
1 sq. mile (640 acres)	259.02 „	2819.456 „ „

Metric	Turkish	English
1 sq. m.	1 sq. arsh. (new) 1.74 sq. arsh. (old.)	10.764 sq. ft.
1 are (100 sq. m.)	1 sq. evlie	119.6 sq. yds.
25 ares	1 deunum (new) 2.7216 deunum (old)	.61778 acre
1 hectare	1 djerib 10.8864 „ „	2.4711386 acr.

Measures of Capacity

Turkish	English	Metric
1 kileh	1.18 bushel	43 litres
English	Turkish	Metric
1 quart (2 pints)	—	1.13586 litre
1 gallon (4 quarts)	—	4.5434 litres
1 bushel (32 quarts)	.8484 kileh	36.347 „
Metric	English	Turkish
1 litre	.88038 quart	—
1 hectolitre	2.75 bushels	2.325 kilehs

Measures of Volume

Turkish	English	Metric
1 cubic arshin (ambar)	.5689 cu yd.	.435 cu. m.
English	Metric	Turkish
1 cubic yard	764537 cu. m.	1.7579 cu. arsh.
Metric	Turkish	English
1 cubic metre (stere)	2.2993 cu. arsh.	1.308 cu. yd.

EGYPTIAN TABLE

Weights and Measures. In addition to the metric system the following local weights and measures are in use :

1 Qantar.	99.0493 lbs.
1 Rotl	0.9905 »
1 Oke	2.75137 »
1 Heml	550.274 »
1 Ardeb.	{ 43.255 Gallons
	{ 5.444 Bushels
1 Keila ($\frac{1}{12}$ of 1 Ardeb).	3.63 Gallons
1 Rob ($\frac{1}{24}$ of 1 Ardeb)	1.815 »
1 Qadah	3.630 Pints
1 Feddan	5,024.16 Sq. Yards.

*) Note 1—The new Turkish measures of weight, length, and surface are based on the Metric System. The new unit of length, the metre, is generally designated “yeni” arshin to distinguish it from the old unit, the “eski” arshin. In all the ministries and other government administrations in Constantinople the Metric System is today in practice, though the old measures are still used in some of the provinces of the interior. The Metric System is in use in all the Balkan States.

**) Note 2—The Mining Law fixed at 15,000 new deunums or 3750 hectares, equivalent of 9266.77 acres, the maximum area for permit.

TABLE OF CONTENTS

	Pages
The American Section Addressed by President Thomas and Consul Maynard	3
Philadelphia 1926	8
The World's greatest water supply	10
The American Hospital of Constantinople.....	15
The Steel Barrel Industry	16
Uncle Sam as Exporter	18
Les Magasins Piggly Wiggly.....	24
The American Date Industry	30
Lime in the United States.....	38
Bread-making in Classic Times.....	40
Commerce and Industry of the United States in 1921.....	42
Amérique et les Cotations C. A. F.....	44
Vessels under American Registry.	48
Molasses.....	50
Bridge to connect Detroit with Canada	52
Babson by Wireless Telephone.....	54
The Tourist in Palestine	54
Army Test of Compressed Horse-Feet	56
Employment in the United States.....	56
Figures on World Population	58
Revised Cotton Estimates and World Figures	58
World Wheat Figures.....	60
Advantages of Panama Route	60
The Economic Resources of Palestine.....	62
Holidays	64
Water Power Projects in the United States	64
Petroleum.....	66
Mother-of-Pearl Industry in Bethlehem	70
Railway Survey for Persia	71
United States Trade in November	71
Trade of Greece with United States.....	72
Entrepôt Frigorifique Gigantesque ..	73
Constantinople Telephone Concession.....	74
Transportation in Anatolia	74
Attendance at American Colleges in Constantinople	74
Egypt Trade.....	74
Bulletin des Offres Commerciales.....	75
Reconditioning the Leviathan	76
School Children in U. S.	76
The Constantinople Market.....	77
Personalial.....	77
Tables of Weights and Measures.....	78

BANQUE DE SALONIQUE

Siège Social à Constantinople—Galata, Rue Voïvoda
Agence à Stamboul: Rue Achir Effendi Kiutubhané.

Bureau à Péra: Grand Rue de Péra.

Succursales: Andrinople, Cavalla, Salonique, Samsoun, Smyrne.

Capital Frs. 30.000.000 (≡) Réserves Frs. 10.057.533,52

Service spécial de caisse d'Epargne.

La Banque de Salonique s'occupe de toutes opérations de Banque