Democratic Watchman.

Bellefonte, Pa., September 26, 1930.

WHY

Era of Skyscraper May Be Nearing End.

If the reader is of that restless turn of mind that makes him wonder what everything will be like 100 years from now, he may have the assurance of an architect, writing in the American Architect, as to the tallness of city buildings. The prophet, who is Francis Keally, asserts that the increasing use of the airplane had doomed the skyscraper type of construction, because the extra high building is an extra hazard to safe and convenient air traffic. He visualizes cities using the tops of buildings for airplane parking, and sees the airplane as a method of transportation as common and generally utilized as the automobile today.

Business men who speed to the office today will literally fly to the office in 2030. Of course, when they decide to fly home they will not want the business of taking off complicated by 100-foot picket fence of towers. So Mr. Keally thinks there will be no skyscrapers, just mile after mile of flat-topped buildings of uniform height.

It sounds reasonable. But if the next 100 years' progress may be judged by that of the past 100, whoever makes any predictions about what the world will be like then is taking a long chance that the future will discredit him. While it is not now in sight there may, in time, be a transportation development that will make the airplane seem as old-fashioned as the ox-cart seems today.—Fort Worth Star-Telegram.

Why Explosives Differ in Results Produced

The bureau of mines says that the idea that black powder works upward and dynamite works downward is only an apparent effect. Repeated experiments have shown that in case of all explosives the tendency is for the explosive effect to be exerted in all directions about the center of the explosive. When explosives are exploded in the open and apparently unconfined, such differences seem to occur, because when dynamite is exploded upon the rock, the rock is shattered; which black powder is exploded upon the rock apparently no effect is produced upon the rock. The fact is that both of these explosives are confined at the time of explosion by the invisible atmosphere about them. When they are exploded, however, the dynamite explodes at a rate enormously greater than that of the black powder. The gases which are produced upon its explosion are therefore given off so fast that they become confined by the air about them and therefore they exert pressure upon the rock sufficient to break the rock. In the case of the black powder the gases are given off so slowly that, like the gases from a chimney fire, they mingle with the atmosphere and therefore the pressure exterted by the exploding powder upon the rock is too little to produce any breaking effect.

Why Elk's Teeth Are Taboo

The custom of wearing elk's teeth purely for ornamental purposes has drawn forth a protest from government officials. The United States biological survey has recently circulated a bulletin throughout the western states calling attention to the disastrous effect the custom was having upon the now dwindled herds of these animals. Two of these teeth cost the life of one of these interesting animals and the number of them in this country at the present time is so small that it is only a short time before they will be wiped out entirely. Thousands of elks have been sacrified to this questionable custom.

Why Heat Stimulates Brain

Making ones' head into an electric heater in order to think better and more rapidly has been successfully accomplished in Germany in recent experiments, according to Modern Mechanics Magazine. Currents were carefully applied to the living brains of men and animals by means of electrodes outside the skull. By testing muscular responses and other bodily actions it was discovered that such internal heating greatly stimulates the activity of the brain and makes other actions of the nervous system more active and effective.

Why Bakers Protested

In its campaign to persuade the people of Germany to eat more rye bread, and thus save the German farmers, the ministry of agriculture proposed a regulation compelling the bakers to use 60 per cent rye flour in all their wares. The bakers of the country, however, foreseeing the difficulty they would have in trying to sell fancy cakes and pastries made mostly of rye, rose up in denunciation. The following day the ministry of agriculture withdrew its proposal.

Why New Alloy Is Valuable

A new metal alloy which combines the lightness of aluminum with the hardness of steel has been developed at Stockholm by Johan Haerden, a Stockholm engineer. The material can be rolled and forged and is impervious to all corroding acids. In engineering and aviation circles in Sweden, it is believed that the alloy will be of great benefit to airplane manufacturers, especially in hydroplanes, on account of its resistance to salt water.

TAKING THE GUESS OUT OF BUSINESS

By JOHN G. LONSDALE
President American Bankers Association

BANKERS and business men err in not adopting more universally the tactics of the scientist. When the scientist wishes to fathom the mysteries of the universe or resolve things into their component parts he calls to his assistance the magnifying power of the microscope. There before him, like an open book, lie the secrets of nature which unaided eyes cannot observe.

John G. Lonsdale

The uncanny power of the microscope's all-seeing eye has revealed countless secrets for the material and intellectual progress of humanity. It has enabled us to study the processes of growing cells in plant and animal life, trace the causes of disease and successfully combat the ills of mankind; it has aided the engineer in his search for stronger and more serviceable materials, giving us taller, lighter and more sanitary structures, and better highways; it has disclosed the defects in steel rails and brought us an era of safer railway travel; it has added to the food supply of the nation; in fact, it has affected favorably nearly every activity of the human race, whether it apply to production, distribution or consumption, in time of peace or in time of war.

In the business and banking world, economic research and analysis serve as the microscope through which we are enabled to see basic factors more clearly and thus determine the causes of success and failure. Only recently have we begun to realize the full value of research and analysis and apply them in such a way as to eliminate the guesswork that was characteristic of industry a few years ago. "Eliminate the guess and reach success," might well be a motto for all of us.

Banking Conducting Continual Research

The American Bankers Association is daily submitting every phase and every department of banking to searching scrutiny and study, says John G. Lonsdale, president of this the world's greatest financial association. The findings of these investigations are made available to the 20,000 members of the organization for their guidance.

"It is a fine tribute to the spirit of cooperation among bankers that it is able to carry on this work," he says. "Bankers from one end of the country to the other are constantly giving freely and unselfishly of their skill and experience so that the association may produce the truly great results that are being accomplished."

Statistical information on national and state banks, savings institutions, trust companies and trust departments, clearing house groups and general banking is prepared after exhaustive inquiry and distributed for the use of all bankers. The organization's investigations have resulted in the passage of beneficial legislation, revision of banking practices and innumerable changes for a stronger and more efficient banking structure. It has set up an educational system through its affiliated American Institute of Banking, where 45,000 ambitious young bank men and women are now availing themselves of the opportunity to advance in the banking field.

"It has been well said that the American Bankers Association, exclusive of the Federal Reserve System, has been the greatest single nation-wide source of stability and improved conditions for banking in the United States," Mr. Lonsdale says.

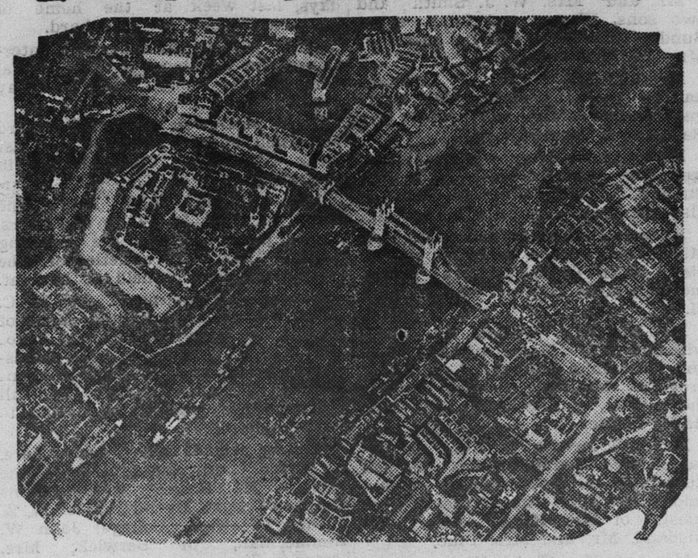
Banking Grows More Complicated

DENVER, Colo.—The increase in the technicalities of the banking business in the past dozen years was shown by a speaker before the American Institute of Banking which held its annual convention here recently when he pointed out that in 1918, when the institute last met in this city, it gave only three courses, while today it gives 10, with more subjects in preparation. At the earlier date, he said, the curriculum of the institute consisted of elementary banking, commercial and banking law, and money and banking, whereas today it consists of banking fundamentals, commercial law, negotiable instruments, standard economics, standard banking, credits, investments, trust functions, analyzing financial statements, and public speaking, while the two new subjects of bank operation and organization, and bank management are to be added.

The New Pace of Business Change

Business evolution used to move slowly—it measured off its gradual changes almost invisibly, like the hour hand on the clock. But today its tempo is that of the second hand. The movement of evolution that is quickening business with rapid changes is alarmingly visible and makes it difficult to keep up with them.—R. S. Hecht.

Port of London



The Thames at the Tower Bridge, From the Air.

(Prepared by the National Geographic Society, Washington, D. C.)

LONDON the city is a Mecca for travelers and is known, from books and stories, throughout the world. London the port is comparatively little known, yet in world economics it is even more important than London the city. The story of this great port involves the ships that crowd the Thames from the Seven Seas, the varied piles of products from all corners of the world that are set down on London quays and docks, and the facilities for handling this mighty business of providing necessities and luxuries for a great block of the world's consumers.

The port of London has developed as her ships have developed. In her 2,000 years of history she has known the long, rakish Viking boats, the little wind-driven ships of the Continent, smacks, frigates, clippers; and since the advent of steam and the gas engine, great mechanical greyhounds of the sea of ever-increasing size.

The smaller ships of the past centuries found it possible to anchor in the Thames or to tie up to her wharves and quays. But as ships became larger and more numerous the great tidal range of the river was found to be more and more troublesome. It was then that London began the construction of the great closed dock system which gives her the most extensive area of artificial ship basins in the world.

A quay or wharf is merely a wall or platform along the shore of a river or inlet. A true dock is constructed by digging into the bank to construct a basin into which the harbor water flows. A lock and water gates usually connect the basin with the outer water. When ships are floated into the dock at high tide the gates can be closed, shutting in enough water to float the ships even when the water has dropped far below the necessary level outside. In some modern docks the water level can be maintained or even raised above the high tide level, by gigantic pumping plants.

Growth of the Dock System.

London's system of docks, now so extensive and elaborate, grew by very slow degrees. The first little wet dock, dug at Blackwall about 1665, was used merely to outfit ships. Samuel Pepys mentions it in his diary. Next, about 1700, came a larger dock used merely as a protected anchorage for ships that were to be long in port. This basin came to be frequented by whaling ships in the Greenland trade and was long known as the Greenland dock. The whalers soon realized that unloading and the taking on of supplies could be better accomplished in the dock than in the river. Blubber factories, storage facilities, and all the ill-smelling accessories of whaling grew up around the basin, which thus was first to take on what are the elementary docking activities of today.

These beginnings of the dock system were constructed within a few miles of London bridge. From them the system has developed, principally down the river into deeper and deeper water. The West and East India docks were built about 1800. They now embrace 127 acres of water basins, millions of square feet of warehouse space, and more than five miles of quays. The so-called London docks, the nearest basins to the bridge, are relatively small, covering 35 acres of water and 65 acres of land. The Surrey Commercial docks, built around the original Greenland dock, consist of 147 acres of water, 230 acres of land, and 5 miles of quays.

Royal Docks the Largest.

The Royal docks, six or eight miles below London bridge, are the heart of London's dock system, and the most extensive inclosed docks in the world. They consist of the Royal Victoria dock, built in 1855; the Royal Albert dock, completed in 1880; and the King George V dock, opened in 1921. Together they embrace 245 acres of water and extend along the river for three miles. More than half a million tons of shipping has been berthed in these connected docks at one time.

Twenty-six miles below London bridge is the most remote of London's shipping basins, the Tilbury docks. These were opened in 1886 to accommodate the largest of the vessels entering the port and those of the deepest draft. Its new entrance lock is approximately of the dimensions of the great locks of the Panama canal, with a depth of 45 feet 6 inches below high water. It is in the Tilbury docks that the greatest of the transocean passenger steamships berth—ships of close to 22,000 tons.

London is not dependent alone on inclosed docks. Along the 69 miles of river which supply the city with potential port facilities, are many miles of open wharves and quays. To these comes a constant procession of barges, coasting boats, and even sizable steamers.

For the past 19 years the great dock system of London has been under public ownership, managed by the Port of London Authority, a corporate body, whose members are in part appointed by the admiralty, the London County council, and other public organizations; and in part are elected by taxpayers and groups particularly interested in the port business. The Port Authority also controls some open wharfage, but the greater portion of this is under private ownership.

Vast Streams of Trade.

With its river, its scores of miles of wharves and docks and its vast warehouses and vaults, the port of London is a gateway and a treasure house through which and into which pours a stream of goods ranging from the barest necessities and the crudest raw materials to the most costly products of loom and factory, artist and craftsman. In part the value and volume of London's sea-borne trade are owing to its geographic situation between continental Europe and the Americas; in part to the city's status as head and heart of the world-wide British empire.

Many of the docks and warehouses devote themselves to certain specialties. The old Greenland dock and its neighbors are concerned largely with the Baltic, White sea, and Canada trade, for the most part made up of timber and grain. To the West India docks come thousands of tons of sugar, scores of thousands of gallons of rum, and hard woods. Sugar is also unloaded by the thousands of tons at the East India docks along with the spices, silks, rugs and dozens of other commodities from the East.

The quantities of goods that pass over London's docks and wharves is stupendous. The leading import in quantity is grain and meals; close to 70,000,000 bushels are brought in yearly, their value reaching $125,000,000. Such dissimilar articles as tea and fresh and frozen meats lead all imports in value. More than $165,000,000 worth of each arrives annually. The greater part of the tea is for consumption, the balance for re-export. The meat is practically all for consumption, and it is supplemented by a considerable quantity of home-grown meat.

On to the docks pour each year tons and tons of butter valued at more than $100,000,000, $50,000,000 worth of cheese, and more than 1,000,000,000 eggs. There is a steady stream of wines and spirits in hogsheads, "pipes," barrels and bottles. Most of these find their way to the underground vaults of the Port of London Authority where there is complete equipment for blending, bottling, storing and aging. There are more than a dozen huge vats each with a capacity in excess of 20,000 gallons.

Fortunes in Warehouses.

This is but a suggestion of the vast stream of goods that passes over the docks and into the warehouses of London. Enough tobacco is in storage to make a smoke screen for the navies of the world—the best tobacco that is afforded by the Americas, Greece, Turkey, Burma, China, Sumatra, Borneo, Cyprus and Africa. Other warehouses contain fortunes in rubber, ivory, metals, rare earths, drugs, perfumes, porcelains, fine fabrics and laces, feathers, furs and hundreds of other commodities that minister to the wants of a complex civilization. In 1928, the total net ship tonnage in and out of London was 55,423,681.

Although the London water front is called upon to care for ships and goods from all the world's continents and seas, it has not wholly a commercial flavor. The most important buildings in the empire, the houses of parliament, front on the river, and for miles along the banks extend the beautifully laid out embankments which furnish stately drives along the winding course of the river. The most famous of these is the Victoria embankment which extends between Westminster bridge, near the houses of parliament, and Blackfriars bridge, down the river near St. Paul's cathedral.

White Bread Wholesome

That white bread is a wholesome food is the opinion expressed by specialists of the United States Department of Agriculture and five nationally known authorities on nutritional problems. The views of this group, headed by Dr. A. F. Woods, director of scientific work of the department, are expressed in part in a statement based on the scientific facts regarding breads made of white flour and of whole wheat flour: White and whole wheat breads are both wholesome foods. They are among the most important and cheapest sources of energy and protein in the diet.

A Diplomat

That a certain young man is wise beyond his years was proved when he paused before answering a widow who had asked him to guess her age.

"You must have some idea," she said.

"I have several ideas," said the young man, with a smile. "The only trouble is that I hesitate whether to make you ten years younger on account of your looks, or ten years older on account of your brains."