

1800 8.

This era marked the rude beginnings of Hawaii's commercial aviation age, when barnstorming pilots staged weekend shows at Kapiolani Park. The more daring of the spectators paid \$10 to go aloft for a ride.

Honolulu was in the midst of a residential building boom, with materials and skilled labor both in short supply. The new districts of Palolo and Kaimuki were centers of much of the activity. It was reported that, "Residence work runs into big figures...for January alone, 26 buildings valued at \$58,000."

Downtown, the Davies Block was "making a formidable showing", and the steel framework of the new Federal Building was taking shape. Movies were Honolulu's most popular new form of entertainment, and both the 975 seat Palama Theatre and the 1700 seat People's Theatre on Fort Street were under construction. The coral Gardens Hotel was being built at Kaneohe.

While private construction bustled however, public works projects awaited the selling of bonds to provide their funding. One of them was the long-awaited Waikiki Reclamation Scheme, for which all of the necessary land had been procured through purchase, exchange and condemnation.

Plans were being discussed for the building of a harbor at Nawiliwili, on Kauai.

Superintendent William A. Wall supervised the drilling of a water tunnel above Palolo Crater which produced 3,000,000 gallons a day, and the same scheme was being considered for Makiki.

At a cost of \$15,000 a new market, "sanitary constructed in all its features", was erected on Queen Street, Ewa of Nuuanu Stream. Its merchants were Chinese and Japanese and its prices were promised to be "within the reach of ordinary mortals".

Plans were being drawn for a 60 acre amusement park which would provide an area for holding fairs. It would be located on King Street, beyond Pawaa, and would cost \$500,000.

Oahu Railway and Land was "double tracking" its line between Honolulu and Waipahu, and was finalizing plans for a new, four-story terminal and office building.

By 1921 the wharf at Hana, Maui had been completed, and work was underway for improving wharfage facilities at Lahaina, Kahului and Hilo. Much in the way of bridge work was being planned, the most formidable of which was the 390 foot span at Waialua on Kauai.

Designed by engineer _____ the steel structure was erected in _____ by _____.

The birth of Hawaii's first "speculative" subdivision was quietly announced in Thrum's Annual for 1922: "In the effort to supply homes, leading lumber firms erected some 16 cottages in the new Punahou Tract, for disposal at \$2,500 each, and 20 cottages have been built in two other tracts costing about \$50,000." "Row housing" was also in vogue, particularly in Waikiki, where "attached" housing was being built in units of from two to eight each.

At Diamond Head, the Dillingham villa "La Pietra" was nearing completion. Designed by architect _____, the \$150,000 structure was built by _____.

Building permits for 1921 were valued at slightly under \$5,000,000.

In May of 1922, the trustees for the Honolulu bodies of the Ancient and Accepted Scottish Rite awarded the contract for construction of a new temple to Pacific Engineering Company, Ltd. Utilizing an unfinished structure which Pacific had started for the Christian Science Society several years earlier, the new temple was estimated to cost \$57,000, plus architects fees. On November 3, 1922, the corner stone

was laid by Governor Wallace Rider Farrington, using the same silver tools that King Kalakaua had employed in similar ceremonies for Iolani Palace.

Citizens of Honolulu heaved a collective sigh of relief when in January of 1922, Hawaiian Dredging Company began work on the Ala Wai Canal. It was to be the major artery of the highly innovative Waikiki Reclamation Project, which would ultimately transform a series of "Picturesque and aciferous duck ponds" into 1400 acres of highly desirable residential property. Originally proposed to the Legislature in 1916 by Governor _____ Pinkham, the project envisioned the future need for parks and open space, and thus called for the securing of an 800 foot wide right-of-way running from McCully Street to Kapiolani Park. To accomodate the project, temporary bridges were erected at Ala Moana Road, Kalakaua Avenue, and McCully Street, and detours were created for both automobiles and streetcars. Seventy-five foot high towers were erected on both sides of Kalakaua Avenue to carry gas mains and power lines. Before the hydraulic dredge started inland, it was first utilized to cut a 600 foot channel out toward the reef, the material thus obtained being pumped more than a mile to the site of

a new high school on King Street. Not to be completed until _____, the Waikiki Reclamation Project attracted world-wide attention for its boldness and for its utilization of highly advanced engineering techniques. Among those islanders whose names were prominently mentioned in connection with the project were:

The growing city demanded rapid expansion of its water supply, the newest element of which was the 2½ million gallon Nuuanu Reservoir, built at a cost of \$61,300. Street improvements were completed at Kakaako, and King Street was widened, the latter giving the civic center a "more spacious, clear and creditable appearance". Competitive designs were submitted for a new clock tower to be erected at the foot of Fort Street. Later in the year another design competition would be won by Louis P. Heart, of San Francisco, for his submission for the War Memorial Natatorium at Kapiolani Park. He received \$1,000 for his plans. Further progress was noted on the Kamehameha Highway project with the announcement that the Heeia section had been completed.

Still more theatre construction was announced, with names like "Princess", "Hawaii", and "Kaimuki" all coming into being in the same year. Ornate in design and innovation, most of these were used for both vaudeville and movies. In addition to its fine new theatre, Kaimuki was host to some of Honolulu's most frantic real estate activity, and many fine new homes were being built there. In April the new Federal Building was opened, housing the post office, custom house, district court, internal revenue office, weather bureau, etc. Plans were being discussed to remodel the old Post Office at Merchant and Bethel, for use by the tax office. During an afternoon matinee, the plaster ceiling of the Star Theatre collapsed, injuring 20 people, and civic leaders called for more stringent building regulations.

Fifth stories were added to both the Bank of Hawaii and the Kauikeolani Buildings, and building of the new McKinley High School was described as being "well advanced". Several blocks of buildings were erected on King Street, North of the O.R. & L. Station, behind which 15 dwellings were built at a cost of \$22,500. Philanthropist G.N. Wilcox donated an 11-building complex at Sea View, Kaimuki to the Salvation Army, for use as a home for boys. Queen's Hospital was undergoing remodeling and was being enlarged, activities which seem to have been

carried on almost continually, even to the present time.

Work began at the new Central Union Church, estimated to cost \$375,000. Architect for the imposing structure was _____.

Further up Punahou Street the stately Christian Science Church was also underway at a cost of \$32,800 exclusive of furnishings. Ground breaking ceremonies were held for the Castle and Cooke building, at the corner of Merchant and Bishop Streets, and it was announced that the general contractor for the handsome edifice would be _____.

Its architect was _____.

At the close of October, building permit valuation for 1922 was placed at \$5,006,869. A total of 2,654 permits had been issued, 333 in March alone.

The old red-light district at Iwilei was the site of considerable commercial expansion, with both a major addition to the American Can Plant and the new Love's Bakery under construction there. National Construction Company was awarded the \$465,000 contract to "complete the sheds of piers 8, 9 and 10 at the foot of Fort Street, "in all features save the ornamental tower of utility, to be dealt with later". Aloha Tower would ultimately be designed by _____, and would be built in 1926, also by National Construction. Its cost was \$160,000.

Note: Check to see if Central Union is a duplicate ~~entry~~ of a church somewhere on the mainland.

On the Valley Island, the Hawaiian Commercial Company and the Maui Agricultural Company completed their new Waialoa ditch, which tapped the waters of Nahiku, 30 miles away, and produced 145 million gallons per day. It was the largest irrigation canal in the islands, and was concrete lined throughout.

By early 1924, with Hawaii's commercial giants anxious to display their successes in the form of new and ornate structures, downtown Honolulu was bustling with building activity.

"The size and character of all business structures for several years past have been progressive, being more spacious, finer finished internally and more ornamental outwardly, without lavishness, as they take on the skyscraper tendency. The presence and skill of the professional architect is thus made apparent, much of which is new to the islands, lending individuality, though it may lack harmony during the transition. The buildings that stand out most prominently in this respect are, the Federal Building, and the spacious Theo. H. Davies Block..." Designed by renowned architect _____, the Davies Block was constructed by _____ at a cost of more than \$2,000,000.

"Steady progress" was noted at the Castle and Cooke building, which comprised four stories and a basement of reinforced concrete. It featured granite terracotta facing, and door and window frames made of bronze. The first floor was finished in marble. It cost some \$700,000 to build, the site having been purchased for \$200,000. The four-story S.M. Damon building on Bishop, running from King to Merchant, was being built to provide facilities for the Bank of Bishop and Company, the Bishop Trust Company and the Bishop Insurance Agencies. The Merchant Street half of the reinforced concrete building was provided with a basement, requiring special engineering skills to overcome the inflowing waters. Contractor R.E. Wooley successfully submitted a bid of \$749,906.

On the opposite corner, at Bishop and King, work was also in progress for the new home of the First National Bank of Hawaii. Built of reinforced concrete, it would be four-stories in height.

Not to be outdone, the Bank of Hawaii purchased the corner of "Bishop Park" on King Street, announcing that it would soon construct new facilities there. Alexander and Baldwin also announced the purchase of a large downtown building site, the Merchant Street corner which had formerly been planned as the new location

for Bishop Bank. The Queen Street end of the block had been acquired two years earlier by the Inter-Island Steam Navigation Company.

The King Street property opposite the Library had been purchased in 1921 as the site of a new City Hall building. At the urging of those who could sense that open space in central Honolulu would someday be a scarce commodity, condemnation of surrounding properties was undertaken, in order to provide "a clear Punchbowl Street frontage from King to Hotel Street".

The automobile population of Honolulu was increasing rapidly, it being noted that many old and unsightly buildings had "given way" to service stations. The latter were described as "lessons of cleanliness to other than their immediate vicinities".

Figures for building permits in 1923 were released, and showed that while there had been an increase in the number of permits issued, the dollar value had decreased by nearly five percent. It was suggested that this was probably caused by a reduction in material prices. Even the most conservative observers were admitting that 1924 had all of the ear marks of a boom construction year. New residences were going up at the average of 100 per month.

Hawaiian Contracting Company, with its low bid of \$1,737,000, was awarded the contract for the Kaimuki Improvement District, by far the most ambitious residential development scheme yet seen in the Territory. It would include 20 miles of pavement, 37 miles of sidewalks and curbing, and four miles of storm drains. Total area of the district was 590 acres, and all work was to be completed by August 1925.

Under the headline, "Human Side Of Industry", the Honolulu Advertiser of July 2, 1925 carried the following item:

"Another chapter telling of the human side of industry, its tragedies and their alleviation under the provisions of a just law which compels all employers to insure their workers against harm was read by the industrial accident board yesterday. 'Smiling' Joe Cast who could not work at his machinist's trade because a smashed finger which healed rigid kept getting in the way, appeared before the board to show how fine his hand is since the offending member was amputated. He goes back on his old job today, earning just as much as before, thankful that the industrial board advised him for his own good. His employer, the Honolulu Iron Works Co., paid for the amputation".

Responding to growing complaints that when completed, Aloha Tower would not be tall enough so that its four clock faces might readily be seen from every quarter, the city fathers called an emergency meeting, announcing shortly thereafter that arrangements had been made with the contractor for the building of an additional story, bringing the total height to 184 feet.

The first increment of the new Territorial Office Building on Punchbowl Street was awarded to Walker and Olund for \$199,000, and the corner stone laid on October 22nd.

As 1925 drew to a close, two structures which remain among the most important elements of Hawaii's architectural legacy made prominent headlines. One was the venerable old Kawaihao Church, which was found to be "honey-combed with white ants and borers", and was condemned against further use by the Building Inspector and the Fire Chief. Immediate plans for reconstruction in concrete and steel were drawn, and a drive for public subscriptions in the amount of \$100,000 was launched.

The second was the Cooke Art Museum, (later renamed the Honolulu Academy of Arts), a Philanthropic gift of _____ Cooke. Designed

by architect _____, this building has long been recognized as one of the most graceful in the state, and has been accorded countless awards and accolades for both its beauty and its function. It was constructed by _____ for \$328,000. Newspaper accounts pointed out that its building had caused "two fine homes to be sacrificed".

1926 found Honolulu's building activity continuing at an unabated pace. By year's end work would be underway on the new building for Bank of Hawaii, (architect _____; contractor _____), the Hawaiian Electric building at King and Merchant, (architect _____; contractor _____), the Y.W.C.A. Building, (architect _____; contractor _____), the Edgewater Apartments at Waikiki, (architect _____; contractor _____), and St. Francis Hospital, (architect _____; contractor _____). Industrial activity continued at Iwilei and in Kalihi, with the building of new facilities for Libby McNeil & Libby, Hawaiian Pineapple Company and Pacific Guano Company.

The "squeeze" for desirable residential building sites was being felt.

"In the residential sections of the city, its suburbs and out-districts, new homes are cropping up in all directions in keeping with the real estate activity. As noted of late years, the prevalence runs to small houses of the bungalow type, in not a few instances forming court apartments for newly-weds or lonelier folk. The valleys and hills claim the homes, though even there with less yard room for attraction and comfort than heretofore, among which quite a number of fine residences are adorning the choicer sites, with the tendency to elevation for unobstructed views. This is the appeal of Alewa, Makiki and Pacific Heights, Manoa, Diamond Head and upper Nuuanu".

Without question, the most significant building project of the day was the new Royal Hawaiian Hotel at Waikiki Beach. Designed by the New York architectural firm of Warren & Wetmore, this fabulous "Moorish Palace" was built by contractor Ralph E. Wooley at a cost of \$4,000,000.

Its completion was celebrated with a gala invitational opening
on _____.

It was hailed as "the social event of the year", with more than 1200 invited.

It was six stories high in its central part, with a 150-foot tower and was four stories high in the wings. There were 400 rooms, each featuring a bath and a balcony.

Much of Waikiki's historic tradition was identified with the hotel, which was located on the Helumoa tract, and included hundreds of coconut trees. It was believed to have once been the site of a prominent heiau pookanaka (sacrificial temple) upon which was conducted the sacrifice of Kauhi-a-Kama, the defeated King of Maui who raided Oahu about 1610. No trace of the temple remained, however.

Attendant to the building of the Royal Hawaiian were experiments conducted by engineer Richard Quinn, involving the placement of concrete groins as a means of enlarging the hotel's beach. This was a technique which had been successfully utilized in England and it was noted that the Harbor Commissioners planned to ask the next legislature for funds to expand the project to include all of Waikiki Beach.

Dredging and reclamation were well underway at Kapalama Channel and Basin, with 60 acres of former swamp land already filled, and reportedly worth \$30.00 per acre. Land at Kailua and Lanikai was "selling briskly", bringing increasing pressure for alternate means of reaching Honolulu.

"The steady development of the windward side of Oahu is pressing the long mooted question of the need of other avenues than the long and tortuous pali road connecting it with Honolulu. The most feasible, and least expensive, has long been thought to be by a tunnel through the Koolau range at the head of Kalihi Valley, and steps have been taken, by action of the Engineering Association, looking to the project, on a toll basis, being at once entered upon by a company to be incorporated to push the undertaking at an estimated cost of \$1,250,000.

On "Victory Day", _____, 1926, Honolulu Stadium was dedicated with a football game between the University of Hawaii and a hand-picked "town team". Seats ran the length of the field on the makai side, but two acres had been kept aside, to "be cleared and brought in when required". Seating capacity was 12,000.

On January 1, 1927 the Honolulu Advertiser carried a listing of some of the more significant public works projects that were

currently underway, noting that various of them were assigned to John H. Noble, R.C. Cummings, and Mr. Boyd for supervision. The projects included the Liliha Street improvement from King to Judd, \$191,991; the Wahiawa Bridge, \$105,000; the upper section of Wilhelmina Rise, \$176,242; the Bishop Street widening, \$585,106; the Queen Street extension, \$177,082; the Woodlawn improvement, \$153,800; and the Manoa storm drain, \$519,184.

Hawaiian Contracting was building the Kawaihapai, Mokuleia road for \$15,000; E.J. Lord the Punahou and Manoa Road for \$75,995, and Young Engineering Company the Waialua Bridge for \$25,800. The Wahiawa Bridge had recently been completed by a contractor named Mr. Smith who then busied himself building the approaches. The Board of Supervisors never officially awarded Mr. Smith the contract for this latter work, and it was reported that "he went ahead on his own responsibility:, and did the job for \$105,000.

January also marked the completion of the Territorial Office Building and the handsome structure was the talk of the town. It had cost \$500,000 to build, and its contractors were Walker and Olund. The plans were drawn by Arthur Reynolds, architect, and A.C. Wilson,

structural engineer, under the direction of Lyman H. Bigelow, Superintendent of Public Works. The original plans did not provide for the dome over the rotunda, which features a Hawaiian coat of arms in cut glass. This was the inspiration of Bigelow and came as an afterthought.

Since funds for the building were appropriated by two different legislatures, the architect was confronted with the problem of designing a building that might have to be completed with only the \$225,000 appropriated by the 1923 Legislature. This accounted for the provision of a larger ground floor area. Sub-contractors included Hawaiian Electric Company for the electrical wiring; Teves and Joaquin, electric fixtures; E.W. Quinn, plumbing; L. Feary, painting; A.J. Reed, marble and tile; Von Hamm-Young Company, ornamental iron. Lewers & Cooke, bronze work and window shades; Waterhouse Company, vault work; Honolulu Planing Mill, mill work; H.W. Laws, roofing. Novelty Foundry (Peter Nielson, Proprietor) furnished the 96 cast iron newel posts, and more than 4 tons of lead and 3 tons of cast iron sash weight were made by the Honolulu Foundry

The structure was built of reinforced concrete and featured bronze entrance doors and bronze side lights. The floors in the public areas were of Columbian Marble, as well as the wainscottings and treasurers counters. All the cages were solid bronze. The walls were finished in tans, grays and greens. More than 200 newly-developed Hart & Hegeman twist switches were installed marking their second use in a large building in Honolulu. There were 6 tons of Sheraduct conduit using as "casing for the wires where they went between the walls". With everything operating the electrical system drew over 62,000 watts of current. A Byron-Jackson booster-pump was installed with a 3 horsepower Westinghouse motor, and was used to lift water to a tank on the roof. Nine panel switchboards were furnished by Hawaiian Electric Company, marking a first use of the Westinghouse safety type panel featuring dead fronts and designed primarily to "protect persons ignorant of the danger of handling open wiring".

The Sculpture work was by J. Rosenstein, which included the Hawaiian coat of arms in the keystone of the entry arch. Rosenstein also worked on many of Honolulu's theatres, the ceiling in the main

hall of the Castle and Cooke building, the YWCA, and the Hawaiian Electric Company.

For this project, Walker and Olund purchased from Grace Bros., Ltd., 8000 barrels of Portland cement, 200 tons of steel, 100,000 board feet of form lumber, a Washington steam hoist, a Kohering concrete mixer and a Nove electrical hoist.

Construction of the Honolulu Y.W.C.A. was completed by the J.L. Young Engineering Company, who had been awarded the contract for \$334,350. The facility was hailed as a "giant step toward the provision of good health and a suitable recreational environment for this city's feminine populace". Appropriate, it was the first structure here to have been designed by a woman, Miss Julia Morgan, Architect, of San Francisco. The planting scheme was designed by Mrs. Catherin Jones Richards, who had done similar work at the Honolulu Academy of Arts, and included the transplanting of mature coconut trees from Waikiki. One of the building's outstanding features was the unobstructed gymnasium floor, which was supported by concrete girders with a 50 foot span. Ceilings in the cafeteria and clubrooms were constructed of reinforced concrete groined arches, marking the first time that this type of construction had been utilized in the Territory.

premises, besides many auto accessory concerns and attractive oil stations in all directions.

Hotel and apartment accomodation is also increasing by new ventures and enlargments with still others projected the coming year. Among other changes in progress is the Chinese Christian church building opposite the McKinley School; new Pawaa theater at the corner of King and Punahou St.; Kapiolani Maternity home on Punahou; new Catholic church at Kaimuki, opposite St. Louis College; Auditorium Building of Punahou School; two new units to the University of Hawaii; American Sanitary Laundry Building, and work begun on the new Kamehameha Schools. Enlargement of the Waikiki Inn is finished.

Residences are going up continually in all sections of the city suburbs, with Kaimuki, as usual, leading as to number if not value".

Research toward the manufacture of a "structural insulation board" from the waste bagasse produced by Hawaii's sugar industry had been going on since the first days of World War I and in 1929

it was announced that a groups of Hilo businessmen had formed Hawaiian Cellulose, Ltd., and expected to begin limited production soon. This firm was succeeded by Hawaiian Crane Products, Ltd., which produced "Canec". (more on this - talk to Jack Lawson)

Honolulu Iron Works was now publishing a bi-monthly magazine called the "Honiron", the March-April edition of which related the following saga:

"Guy Rothwell, Architect and Engineer, of Honolulu and two contractors -- Messrs. Robert S. Chase and Charles H. Finlayson retained the services of one of the veteran boatmen of Kailua-Kona, and put to search for big game fish.

At 3:00 P.M. Mr. Finlayson hoped to change the luck by having "double swordfish" Rothwell take on of the rods. Immediately two swordfish struck, and in the wild excitement which followed both Mr. Rothwell and Mr. Chase behaved abominably -- one falling down the engine room hatch and the other falling into the fish well, while Mr. Finlayson fell overboard once and was prevented from doing so the next time only by the dexterous use of the gaff.

Incidentally, both fish remained at liberty

After that things began to happen rapidly, as three mahimahi were hooked simultaneously, with the result that Captain George's sampan was nearly capsized. Considerable equipment was lost overboard.....but the fish were landed.

The first fish aboard was Mr. Rothwell's and in attempting to kill the big fellow, which had taken possession of the deck, Mr. Rothwell missed the fish and struck Mr. Finlayson soundly upon the shin with the club.

Mr. Finlayson was restrained from throwing Mr. Rothwell overboard by the Captain.

But the day's catch was remarkable, and after two days of fishing the party returned home by way of Kau and Hilo.....still, miraculously the best of friends".

Other projects in progress were the John Rodgers Airport, the Insane Asylum at Kaneohe, and the Hilo Airport. The Waimea Canyon road was going in at Kauai at a cost of \$162,000 for four and one-half miles. R.C. Woolley had won the contract for building the Dillingham Transportation Building for \$619,368, and Walker & Olund were building the Brewer Office at Fort & Queen for \$319,258.

H. Freitas built the E.O. Hall & Sons Building at King and Fort Streets for \$125,000.