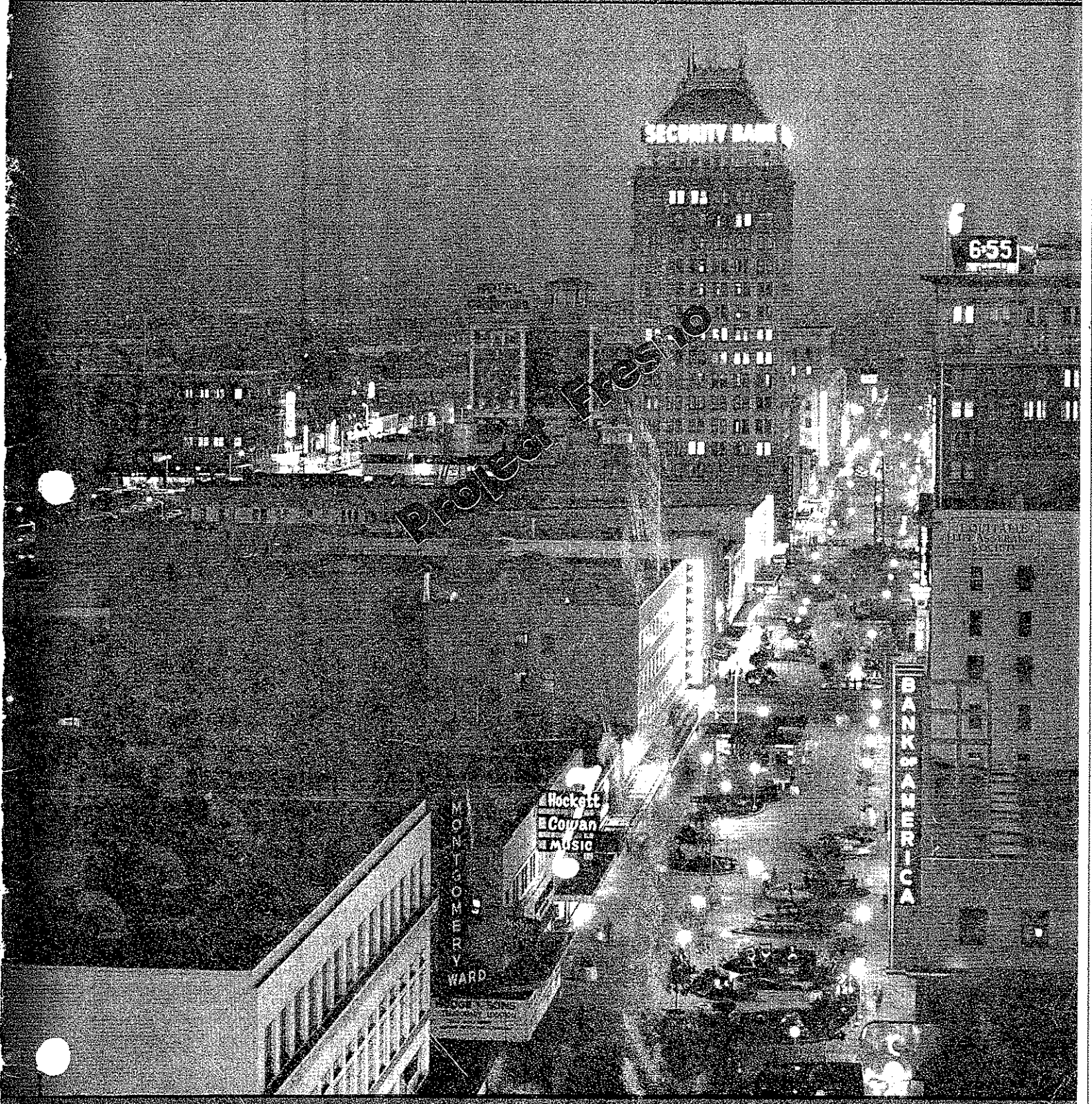


# NEWS BULLETIN

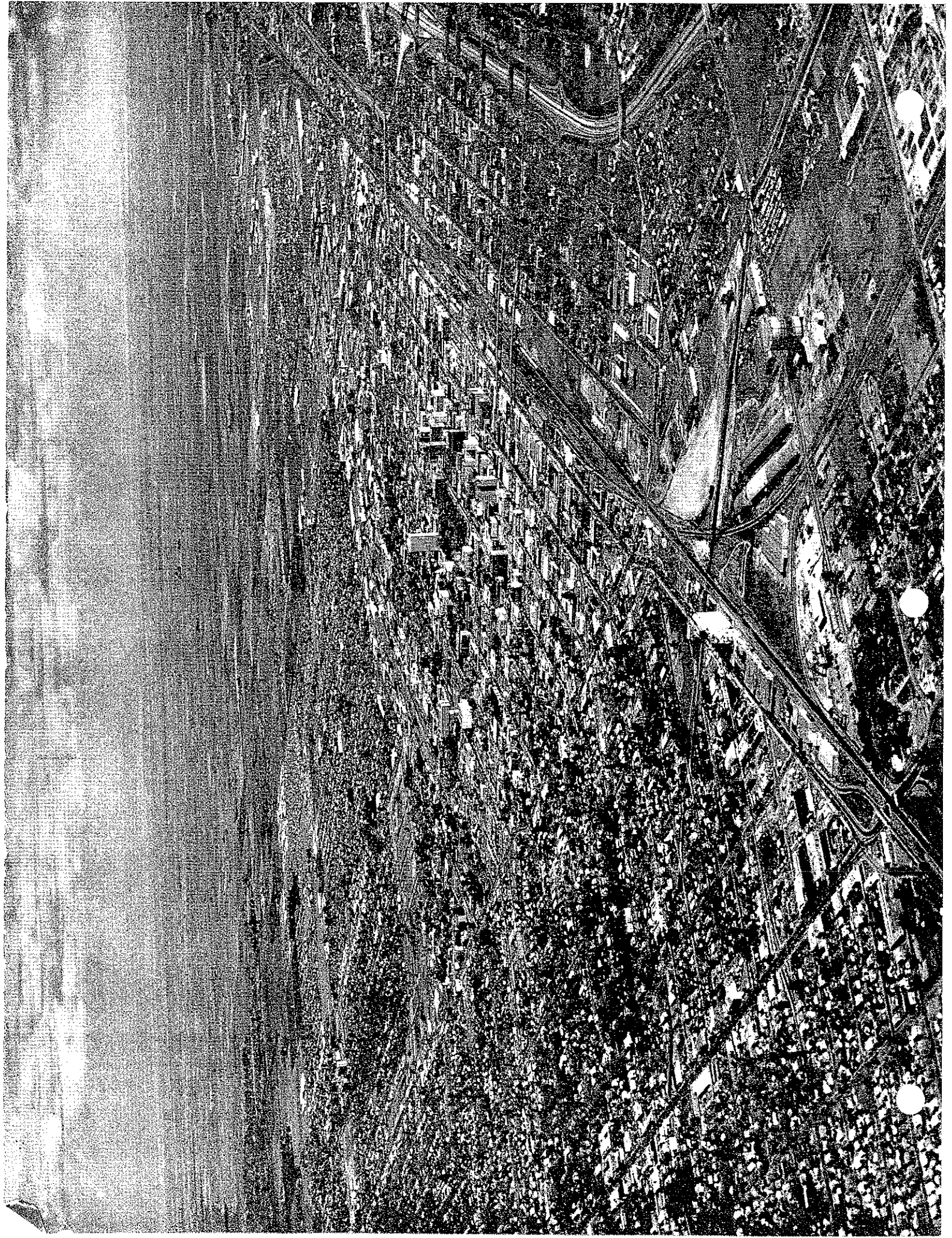
NATIONAL AUTOMATIC SPRINKLER AND FIRE CONTROL ASSOCIATION, INC.

Number 228

NOVEMBER-DECEMBER 1966



• FOR THE CONSERVATION OF LIFE AND PROPERTY FROM FIRE •



# WORLD'S AGRIBUSINESS CAPITOL

*... City with a 21st Century Fire Plan*

Fresno, County, California lies in the lush San Joaquin Valley, halfway between San Francisco and Los Angeles. With an agricultural production of a half billion dollars a year, it ranks number one in the world.

Nearly half of its 400,000 people live in the city of Fresno.

It's an industrial town too. Diversified. Sun-Maid Raisins, Schenley Industries, Dow Chemical, Pittsburgh Plate Glass Company, Zellerbach Paper Company, and Standard Oil of California are a few U.S. corporations which have invested billions of dollars in metropolitan Fresno.

## **AUTOMATION - Key to new World of Municipal Fire Security**

About a million firemen stand guard 24 hours a day in Fresno's central business district. Probably no other city in the world has more firemen per square mile; more firefighters per capita population. These firefighters never go off duty, never sleep, are immune to hot toxic gases, and are located not more than a few feet from any fire that could break out any day or night. They never leave the 420 buildings they protect and respond to fires automatically. In seconds. You guessed it.

*They're automatic sprinklers.*

About sixty percent of the swank shops, modern office buildings, financial institutions, hotels and restaurants are sprinklered. 420 fire battalions are permanently stationed in 420 buildings

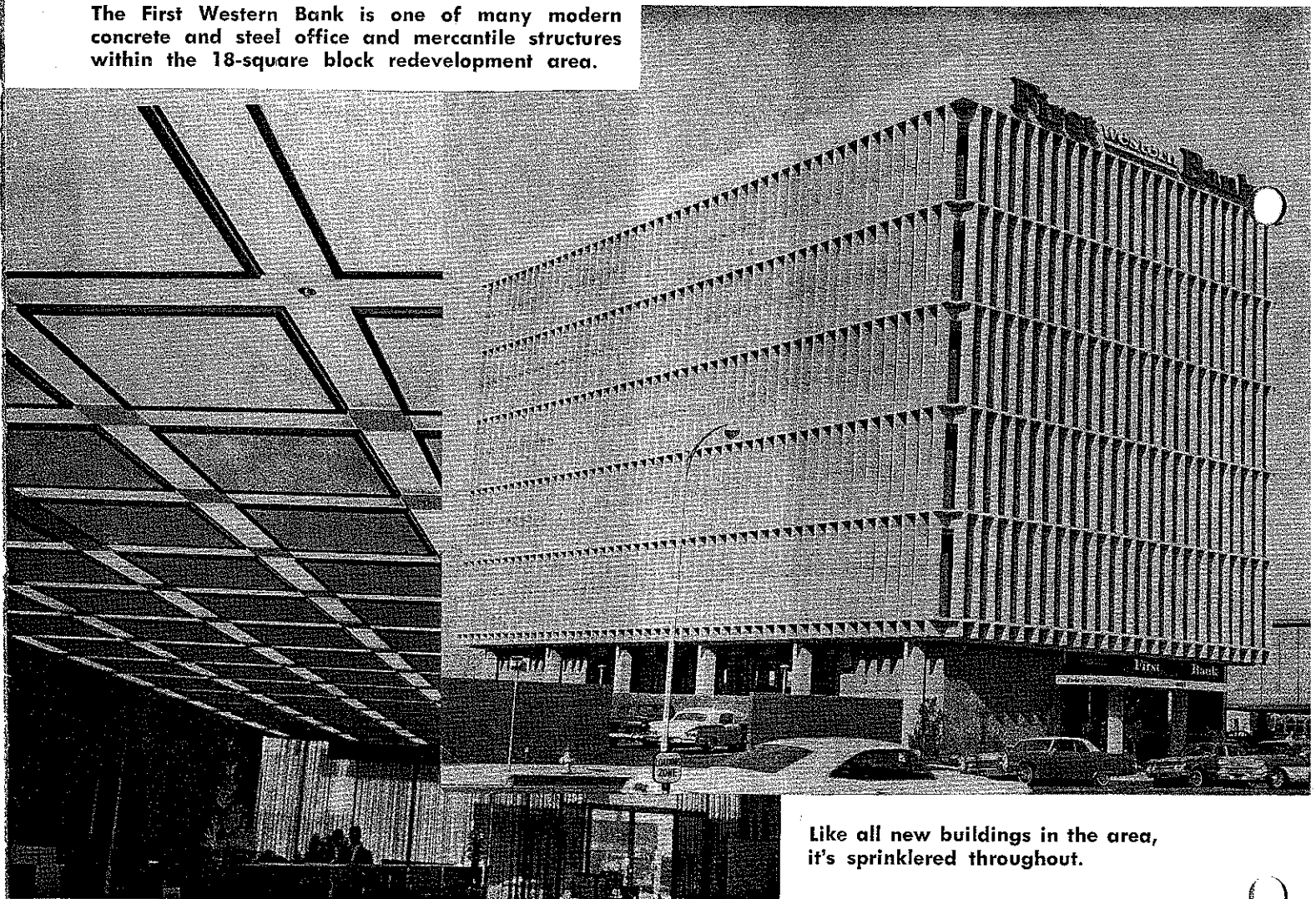
within the city limits. By 1970, 90% of an 18-square block area, containing some of the world's most modern and beautiful buildings will probably enjoy this ultimate in *automated fire protection*.

Just west of the central business district, another 22-square block area, once a blighted slum has been razed; one result of an urban renewal program of far-reaching dimensions. Out of the ruins will rise a clean, modern industrial park, zoned for light industry. The entire area will be completely sprinklered under the city's master plan to provide maximum fire safety as it reduces costs and brings Fresno to the brink of a twenty-first century urban community.

## **FRESNO** *has reached Tomorrow - Today!*

No one man can claim credit for the plan. It's too big, too complex and imaginative; involves too many inter-related departments of municipal and the federal government. Its success has resulted from the dedicated efforts of every member of Fresno's municipal team, from its

The First Western Bank is one of many modern concrete and steel office and mercantile structures within the 18-square block redevelopment area.



Like all new buildings in the area, it's sprinklered throughout.

mayor to its Planning and Inspection Department, its Fire Department officials to the youngest plan checker in the building department and the freshest rookie in the Fire Prevention Bureau.

Even the creative energies of city planners, the Planning and Inspection Department and the Fire Department could not make this plan work without the total cooperation of the Federal Urban Renewal Agency in this city.

## **THE GRAND DESIGN - *It's "Why's" and "How's"***

Five years ago this city faced a problem common to virtually every U.S. municipality. The cost of public fire protection was rising rapidly. Fewer firemen, greater geographical areas, more terrible "fire loads" and higher populations were to be protected by fewer firemen and less equipment with each passing year.

In 1955, Fresno had 72 *men* on duty — ready for action — 24 hours a day. Their job: to protect 24 square miles with 9 engine and four-ladder companies. The lives and property of 107,000 people were their responsibility.

By 1966, man power had dropped to 64 *men*, "ready for call" 24 hours a day. An area of 14 square miles had been added to the city as one new engine company and two air crash units were provided.

As new modern industries moved into Fresno, the number of fire fighters was reduced from 3 *men* to 1.7 *men per square mile*.

The ratio of firemen to population dropped from 7 *men* per 10,000 to 4 *men* per 10,000.

New high rise buildings were being erected; chemical plants, high piled storage, and increased population density compounded the problem.

Higher equipment costs, a 40% increase in firemen's salaries, increased construction costs for new fire stations was augmenting the *cost of public fire protection at an alarming rate*.

In 1955, the National Board of Fire Underwriters conducted an engineering survey of the city, evaluating its water supplies, building construction; sprinkler protection. It rated its building departments, its fire departments, and fire prevention bureau, and graded Fresno as a Class 3 city, under its "STANDARD SCHEDULE FOR GRADING CITIES AND TOWNS WITH REFERENCE TO ITS FIRE DEFENSES AND PHYSICAL CONDITIONS," commonly known as the "GRADING SCHEDULE."

The purpose of such grading is to evaluate the total capacity of a community to cope with the perils of fire, earthquakes and other natural disasters. *Its result establishes a base fire insurance rate.*

### *Graded by National Board*

Cities are graded from Class 1 to Class 10; Class 1 being a theoretically perfect city and Class 10 being a city with the least capacity to cope with fire, earthquake and other hazards.

No city has ever been graded as a Class 1, but *twenty-eight* U.S. cities have been graded Class 2.

# How the Grading Schedule Works

An elaborate system to evaluate and measure a city's capacity to cope with the hazards of fire, earthquake, hurricanes and other natural disasters has been devised and refined over the years by the National Board of Fire Underwriters, now known as the American Insurance Association.

Virtually every facet of a community's capacity to deal with such disasters is measured by a system of "deficiency points."

It is theoretically but not practically possible for a city to receive "zero" deficiency points.

34% of the deficiency points which can be imposed upon a city relate to its water supply; its pressure, availability, and volume. In the language of the grading schedule, this is known as "fire flow." 14% of the possible deficiency points can result from inadequate building design, inability of structures to withstand wind stresses, earthquake hazards and fire. The degree of sprinkler protection is also weighed in the grading schedule.

Fire department personnel, manpower, equipment, and training are other important factors counting for 30% of possible deficiency points. Whether or not a city has a fire prevention bureau can count for or against a city and the degree of its training; whether

its officers are appointed or are civil service also affect the grading results.

The building and planning departments of cities are also evaluated.

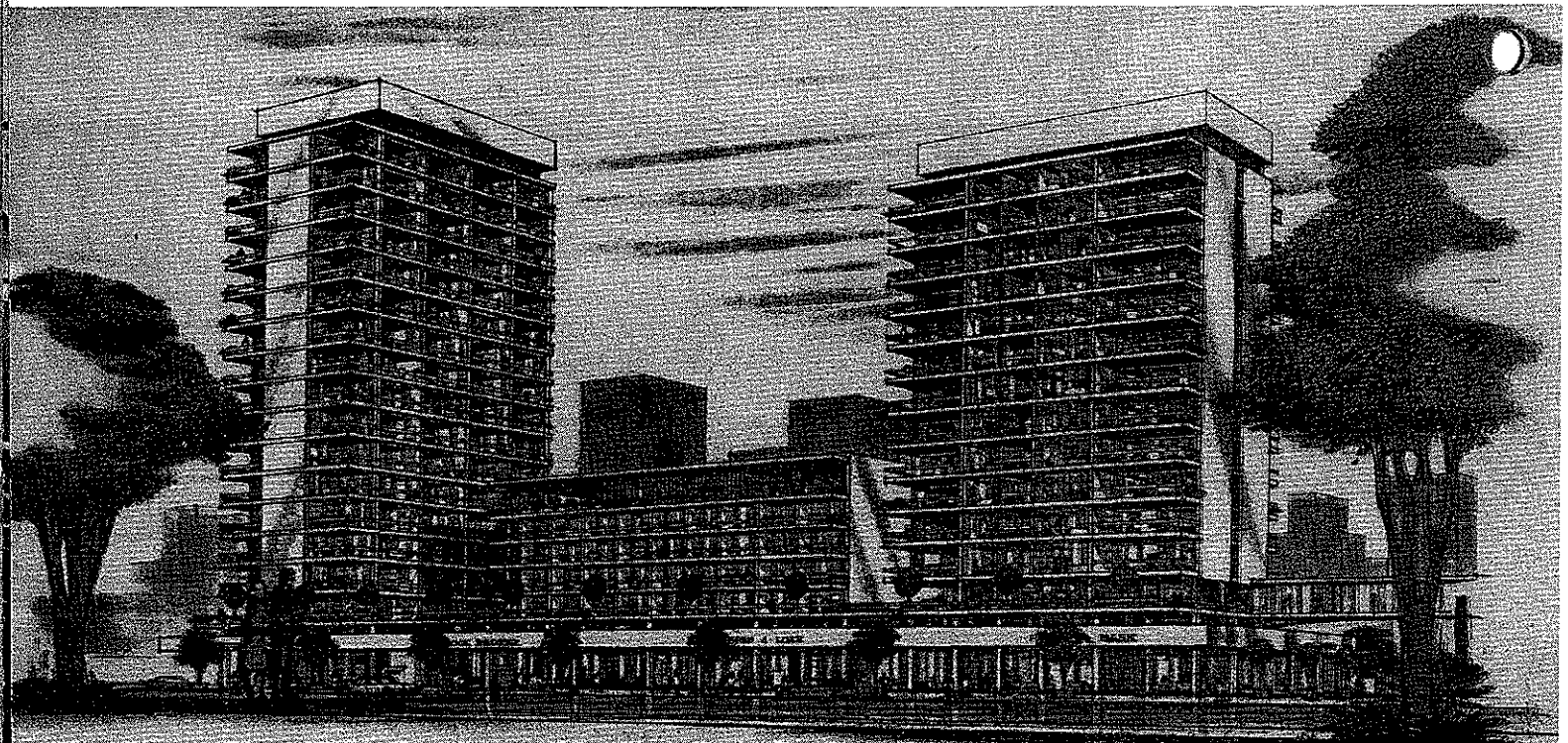
## To Be Re-Graded

In the near future, Fresno expects the American Insurance Association to regrade its city. Although it has one of the nation's finest fire departments and fire prevention bureaus, and a building department second to none in the nation, its public fire services, like most U.S. cities, suffer severely from manpower and equipment shortages.

This was a major reason for implementing a tissue of rules, laws and regulations which led to the automation of sprinkler protection within the "fire limits."

It is expected that because of the small amount of water needed to fight fires in downtown Fresno, an almost completely sprinklered area, enough deficiency points can be removed to upgrade it to a Class 2 city, reducing fire insurance rates.

Under the Urban Renewal Program, the basic legal instrument upon which the whole plan rests, all newly erected buildings within the project area in Fresno *must be sprinklered.*



**The Park Towers, a proposed multiple story office and apartment complex with subterranean parking facilities for 700 autos. This modern complex, now under construction will be sprinklered throughout under the requirements of the redevelopment plan.**