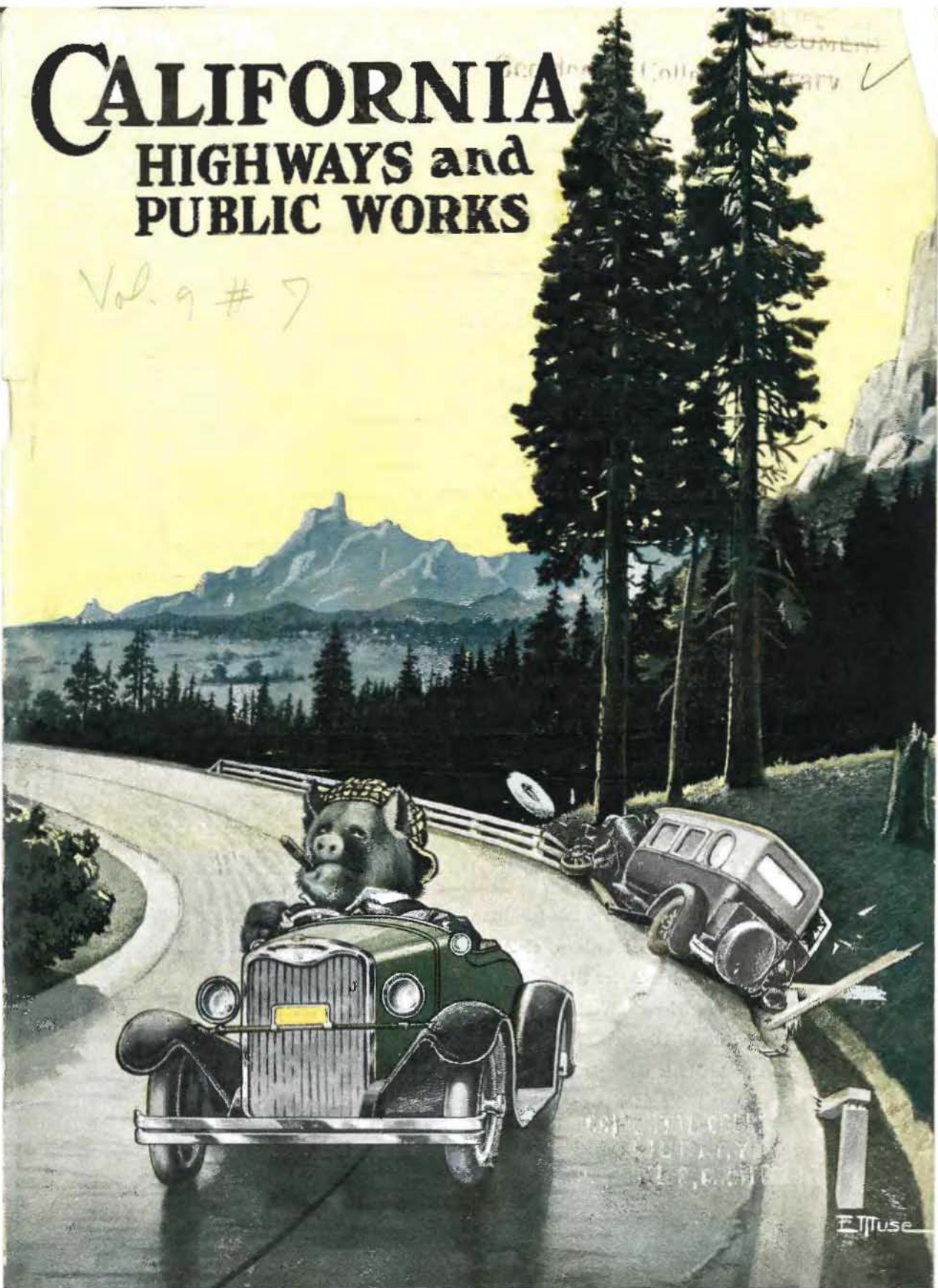


# CALIFORNIA HIGHWAYS and PUBLIC WORKS

Vol. 9 # 7

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**SIX MILLION DOLLARS** worth of contracts are to be awarded by the Department of Public Works during the next three months for highway work!

And the total contracts under way on July 1st amounted to \$17,522,969.

The total number of men employed by the Highway Division on that date was 6261.

Thus does the Department of Public Works enter the third quarter of the year with expectation of awarding additional contracts of \$2,726,500 and bringing the total for the period to the not insignificant sum of \$8,726,500.

#### GOES TO LABOR

**Seventy per cent** of this expenditure is passed on to labor.

The Division of Architecture is shaping its work so that additional employment may be given 1700 men during the July-September period. Already 2042 are at work on various projects.

Awards already made total \$5,868,010 for 100 projects. Those to be undertaken during July, August and September call for an estimated cost of \$4,858,273, involving 69 projects.

**Thus it is shown that the two divisions alone will employ more than 9000 men!**

#### LARGE INCREASE

Activities of the Division of Water Resources are largely technical, but this service comprehends work costing \$1,658,000. The regular staff of 250 trained men represents a considerable increase, made necessary by the expanding services of the division.

Summing up, the Department of Public Works is right up to its schedule of activities, drawn up under Governor Rolph's program for speeding up public improvements as a means of alleviating unemployment.

**Nor must the fact be lost sight of that the employment of more than 9000 men on State projects does not nearly represent the total given work under this speeding-up**

process. Considerable labor is necessary in preparing materials and machinery to be used on contracts let by the various divisions.

#### ENFORCE NEW LAWS

While it is impossible accurately to estimate how many are so employed, it should be noted that the Department is preparing strictly to enforce the provisions of the two so-called labor bills passed at the last session of the Legislature and signed by the Governor. One of these, Chapter 398, Statutes of 1931, provides that **NONE BUT AMERICAN CITIZENS MAY BE EMPLOYED ON STATE PROJECTS** unless in the event of extraordinary emergency. The other, Chapter 397, Statutes of 1931, assures the worker payment of **NOT LESS THAN THE GENERAL PREVAILING RATE OF WAGES** on public works.

Some idea of the work planned by the Highway Division from July to December may be gleaned from the following table, which is an estimate of the jobs to be done, although it shows the jobs which it is proposed will be advertised up until December 31st. Perusal of this list will show that the work is distributed over the entire State, thus giving employment in every section.

#### PROPOSED WORK

Road	Limits	Amount
I-Men—Cedar Creek and Dann Creek bridges		\$284,000
V-Mon—Rocky Creek to Divide		311,500
VI-Mad—At MaGera		40,500
II-Sha—Clear Creek approaches		9,100
V-SBt—S. boundary to San Benito River		344,600
IV-SM-SCL—Redwood City to Oregon Ave.		561,400
IV-Ala—Greenville to Livermore		166,100
II-Las—Willards to Susanville		253,000
III-Cic—In Willows		25,700
III-Pla—Lincoln to Sheridan		54,700
VII-Ora—Fullerton to westerly boundary		158,800
V-SBt—San Benito River bridge		140,000
VI-Mer—Bridges		40,000

(Continued on page 22.)

## State Agencies Welded into Unit In Intensive Forest Fire Battle

**T**HAT right now is the time to start improving the State fire laws by uniting all industrial and commercial interests and tying the fire situation into the big problem—the water problem of the State—was the key message given the California Fire Emergency Committee at its first executive session, July 1, at the State Capitol, by Roland A. Vandegrift, Director of Finance.

"We know," said the Director of Finance, speaking on the administration's policy of forest protection, "there will always be the necessity for spending money for forest fire suppression, and of course the best method of suppression is prevention. We listened to State Forester M. B. Pratt and other gentlemen who are particularly concerned, and I believe that we can say without fear of contradiction that the State of California is now and will be, as a result of the budget, in a better position to protect the forests and the other property in the State from fire than ever before."

### ADVANCES CAMPAIGN

Vandegrift's talk, according to actual fire fighters present, not only advanced 25 years' efforts of fire prevention endeavors in California to a workable basis as long visioned by fire organizations, but also visualized a solution of the problem through the medium of such a constituted body as the California Fire Emergency Committee.

It is claimed by fire prevention leaders that Vandegrift's visualization of the fire problem as (1) a coordinated State project, (2) to become a major factor in the State's water problem, and (3) to be covered by adequate State legislation for enforcement purposes, properly installs all fire plans into the industrial development and preservation of the natural resources of the State, thereby converting the whole problem from a seasonal menace into a State economic measure of real value.

### ROLPH'S MESSAGE

Unanimously supporting the contentions of the Director of Finance, the committee named three of its members as a subcommittee to study remedial legislation covering fire pre-

vention and suppression. The subcommittee consists of R. A. Vandegrift, chairman; State Fire Marshal Jay Stevens and Superintendent E. Raymond Cato of the Highway Patrol.

"The presence of the members of the California Fire Emergency Committee here today is of great significance," said Governor James Rolph, Jr., in opening the executive session he had sponsored. "It means that the State government is solidly back of the preservation of California's greatest heritage—its forests and watersheds."

After reviewing the purposes for convening the session, in closing his talk to the committee, Governor Rolph said: "Now is the time for California to recognize squarely and fully its responsibility in forestry. We must search for the facts and upon these facts build a program of development which can be carried out progressively as rapidly as sound public finance permits."

### COOPERATIVE AGENCIES

As executive secretary of the committee, State Forester M. B. Pratt outlined the activities of the nine distinct fire prevention campaigns being carried on in the State by cooperative agencies to the Governor's proclamation.

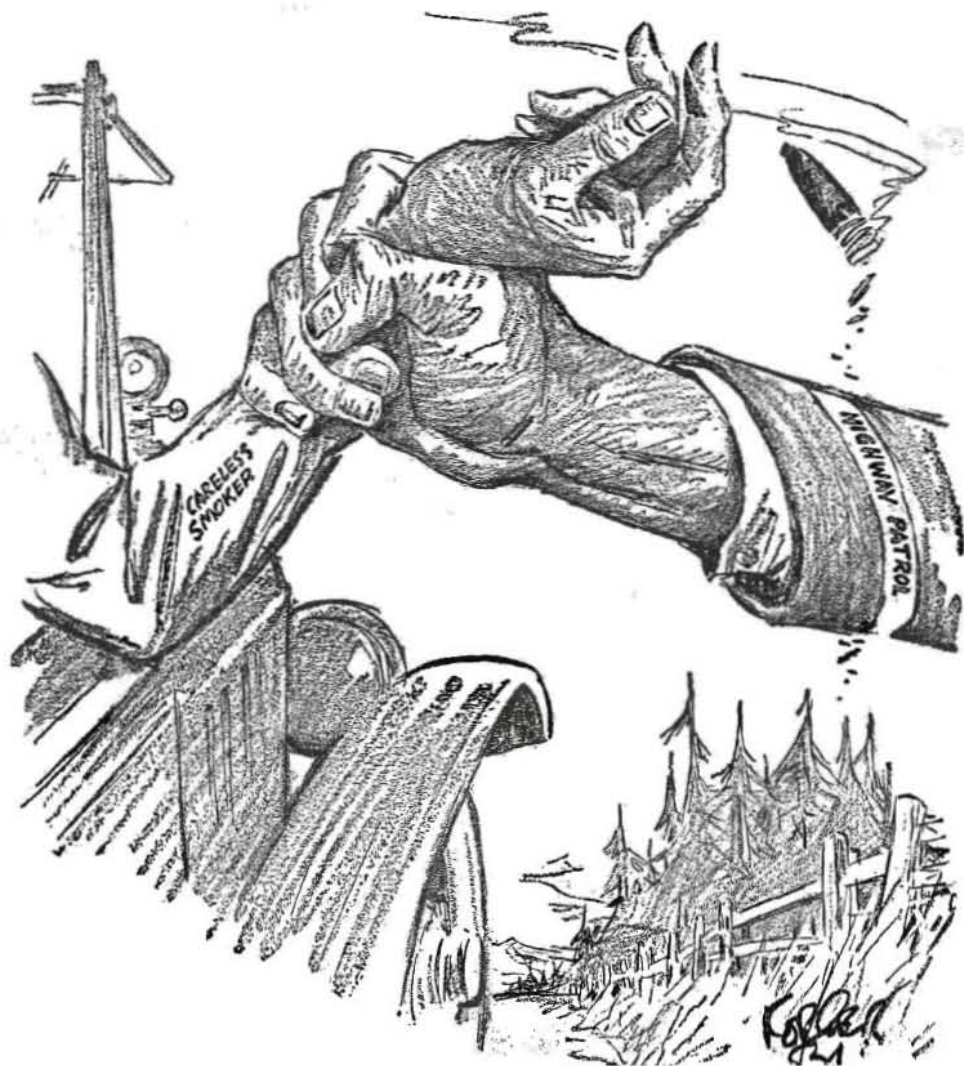
As a coordinating body, the California Fire Emergency Committee is expending no State funds on the consolidated fire prevention campaign this season. The costs of the campaign are contributed by the cooperative agencies.

In addition to the State Division of Forestry and the U. S. Forest Service, fire prevention campaigns are being conducted by the "Stop Forest Fires" Committee, the State Chamber of Commerce, the California Forest Protective Association, the California State Automobile Association, the Automobile Association of Southern California, the American Legion and the Conservation Association of Los Angeles County.

### COORDINATED REPORTS

With an attendance of 15 out of 17 members listed in the proclamation, the major portion of the session was devoted to receiving reports of accomplishment from the coordinated State forces.

# GIVE THEM THE CURE - - By Rodger



State Forester M. B. Pratt and members of Governor Rolph's emergency committee have acted with commendable promptness to cope with the forest fire problem, which is more serious than ever this year because of the extraordinary light seasonal rains.

Recognizing the fact that many of the fires that are turning California's famed forests into wastes of burnt stumps are started by careless campers and motorists, the State Highway Patrol has been ordered to exercise special vigilance in making arrests for violation of fire prevention laws.

It may not be generally known, but the state law prohibits the flicking of lighted matches, cigars and cigars from automobiles and is even more stringent in dealing with campers who fail to put out all flaming substances when breaking up camp.

The punishment following conviction may be a term in jail or a fine or both.

Supt. Cato of the patrol has assured the emergency committee that his men will not hesitate to make arrests, and is making an appeal to the courts for cooperation.

It is a matter of general knowledge that the courts in the past have dealt lightly with this type of offender.

The News has no disposition to "pull the law" on anyone. But in view of the seriousness of the situation we can see no reason why the courts should not mete out the penalties prescribed by law to those who despoil our forests.

Cooperation between the enforcement officers and the courts, in our opinion, will reduce forest fires to a minimum.—(S. F. Daily News, June 8)

## Highways First Line of Defense In Fire; Man Power Mobilized

How the Department of Public Works is making the State highways of California a natural firebreak as a means of reducing the annual toll of devastation taken each year, is told in Colonel Walter E. Garrison's report to the State Fire Emergency Committee. The report, read to the committee July 1st, follows in part:

**T**HE department has made immediate response to the Governor's call for aid in fighting fires.

The entire man power and equipment of the department has been made ready for the field. Regular employees came first, then contractors engaged in highway work were advised that under the regulations, specifications and contracts their crews were subject to service in fighting fires.

The highway employees, motor patrolmen and contractors' crews numbered more than 3500 when the call went out.

### PLAYS MAJOR PART

Now with the construction program in full swing, man power has increased to nearly 5000 and the distribution of these forces at various points in the State makes possible a quick service at any point. So, in cooperation with the Federal Forest Service and the Department of Natural Resources, the Division of Highways is able to play a major part.

In human ills, prevention is better than cure. It is equally true that the fire prevented is the only costless one. It is better business to prevent fires than to arrest them after they have taken their toll on public and private property.

The Department of Public Works has a definite program of service in reducing the fire hazard. Work of prevention is accepted as a function of the department and it is under way for several months each year.

### SPRAY AND BURN

The 1931 program of the Division of Highways provides for spraying and burning roadside vegetation over 46 counties. It covers 1150 miles and represents an expenditure of \$81,000. Supplementing this is the work done in fall and winter months in the forest areas. Growths encroaching on the rights of way are burned with an annual cost of about \$20,000. More has been done this year—thanks to the emergency appropriations to relieve unemployment.

Burning of growths and vegetation along highways and rights of way was at one time regarded as an act of good housekeeping. The clean road pleased the eye. It continues to do so, but a decidedly more practical object now is sought.

This is a dry year. The State roads thread seared valleys and dry mountain roads. The work of oil spraying rights of way and burning them over and the clearing of dry brush from hill roads does two things. It removes the hazard latent on the roads and the cleared rights of way provide thoroughly effective firebreaks.

### HIGHWAY A DEFENSE

Fires must not start on highways. Fires started elsewhere must stop at highways. Thus a hazard is removed and an aid to safety established.

It is not too much to say that the State highway system already has become a first line of defense against fires and will be improved yearly in this service.

**If motorists using the highways and campers who go into the forests will only exercise known and obvious precautions, their contribution to the safety of lives and property will be a material one.**

Work of clearing the highways is carefully planned and the plan works. Early in the season the most hazardous areas on the more than 3000 miles of highways, with nearly 700 miles in the worst forest section areas, were scouted and mapped.

### UTMOST PRECAUTION

A strip nine feet wide along both sides of the right of way is sprayed with oil and early burning begun under every known precaution to prevent the spread of fire. In addition to ordinary tools for service, the men are equipped with Hauck torches and Indian type knapsack pumps. Each crew is attended by a water tank or fire truck, sentinels are posted at control points to protect traffic and the utmost care is exercised to protect trees, fences and inflammable property.

## Inflammable Matter Along Rights of Way Sprayed and Burned

It is understood, of course, that only the most hazardous places are selected for protective treatment, but even under this limitation the range of the year's work, now well accomplished, includes 1150 miles in areas distributed as follows:

Along the Redwood Highway in Marin, Sonoma, Mendocino and Humboldt counties; the Pacific Highway east and west of the Sacramento River to Redding, as well as scattered sections totaling perhaps 25 miles between Redding and the State line; portions of the Tahoe-Ukiah route; between Roseville, Auburn and Grass Valley.

### WIDESPREAD FRONT

The Mother Lode from Auburn to Sonora; the mountain laterals, between Sacramento and Placerville, Clay and Jackson, Lodi and San Andreas; the all-year highway between Merced and Yosemite; the inland coast laterals, Gilroy to Califa, San Lucas to Hanford, and Santa Maria to Maricopa; the main line from Sacramento to Napa; the river lateral from Lodi to Suisun, Martinez to Richmond; the valley route from Sacramento to Bakersfield; the ridge route, Bakersfield to Los Angeles; and the coast route from San Francisco to San Diego. Work will also be done in San Diego, San Bernardino and Orange counties.

The subject of fire prevention is one of such scope as to make its detailed review impossible in a brief report, but, summarized, it may be said:

The highway system of California is becoming a first line of defense against the spread of forest and vegetation fires.

### ASSURE COOPERATION

The Division of Highways is doing annually a work of highest value in fire prevention.

The Division of Highways as a cooperating unit is effective in the field both because of its superior numbers in man power and because of its distribution of men and equipment.

Associated agencies may be assured of cooperation and assistance promptly and to the full measure of the department's resources.

*Life to the Forest,  
Life to the Tree;  
Fire prevention—  
That is the Key.*



\$100 SMILE THIS—She's Helen Nonam and that's the slogan above her picture, for writing which she received the check she holds. A student of Herbert Hoover High School, Glendale, Miss Helen won first prize in a contest conducted by the Stop Forest Fires Committee of California. Why shouldn't she smile?

### COMMUNITY SPENDING

Forty-eight California counties spent a total of \$1,609,506.37 for advertising and promotion in 1930, a report issued by State Controller Ray L. Riley reveals. Mr. Riley figures the per capita cost at 30 cents. Los Angeles County was the largest single advertiser, spending \$954,397. San Francisco spent \$140,000, Alameda County \$104,779, and Riverside County \$59,786.

Uncle Sam has in his postal service alone, a total of 77,585 automobiles.

# Experiments Prove Radio's Worth In Broadcasting Orders to Police

By JAMES ROCHE, Inspector in Charge, Bureau of Communication

"HELLO! This is border patrol office at ----- speaking. Please stand by and receive report on murderer somewhere on the California highway, heavily armed and driving a stolen auto."

That might be a message sent through to all highway patrolmen in the near future should present plans for a State-wide radio system for the California Highway Patrol come into being.

The project calls for several low wave length stations throughout the State, the broadcasts from which will not interfere with regular radio programs, since the broadcast wave would be beyond the reach of commercial receivers.

## START MAN HUNT

Installation of radio sets in border checking stations would completely shut off all auto entrances and exits and, with receivers located in patrol offices and on patrol cars and motorcycles, it is not hard to picture a conversation like that above being the signal for an intensive man hunt on the part of the Highway Patrol.

It has been my duty to inspect the radio systems of the San Francisco, Berkeley and Los Angeles police departments; the Boeing Aircraft and the Radio Corporation of America systems; the equipment of the Western Electric Company and the plan employed by the Department of Forestry. Consequently I am most enthusiastic over the possibilities of such means of communication for the Highway Patrol.

## TALK TO CAPTAINS

A unique experiment was tried during the last class of captains, then in session at the Sacramento training school. Chief Cato talked over the air directly to the school several miles away, by means of the Boeing aircraft transmitter. He outlined to the assembled captains the policies and duties of the patrol and was heard clearly. I also had the pleasure of addressing the officers on "Communication and Radio" and was grateful to learn subsequently that the county captains are enthusiastic over this modern method of crime broadcasting.

Further tests at headquarters in Sacramento have demonstrated the feasibility of the system. A low wave length receiver was installed at Eleventh and P streets and we were able to listen in on the different police department radio broadcasts throughout the State—in some instances we heard other states as well.

Intensely interesting examples of the efficiency of police broadcasting were picked up by us in Sacramento. One in particular came from Los Angeles. We heard radio headquarters there order two patrol cars to a burglary assignment. A few minutes later we listened in as one was instructed to return to its regular beat since the other had apprehended the thieves.

## WOULD AID PATROL

In passing it might be noted that Los Angeles police have increased their felony convictions 60 per cent since the installation of radio equipment. Chicago sends out an average of 3000 calls per day via low wave.

The value of this system for the California Highway Patrol will be readily recognized. Our men are spread over every strategic center of the State. Not only would our efficiency in patrolling the highways be improved; our record of cooperation with other police agencies in the apprehension of criminals enhanced; our effectiveness in time of emergency or disaster increased, but—we would go far in aiding in keeping criminals out of the boundaries of this State.

## SPARE OUR BLUSHES

THE TRIP from Sacramento to Lake Tahoe by way of Auburn can be made easily in four hours without getting the automobile dusty, due to the splendid condition of the new road to the Donner summit.

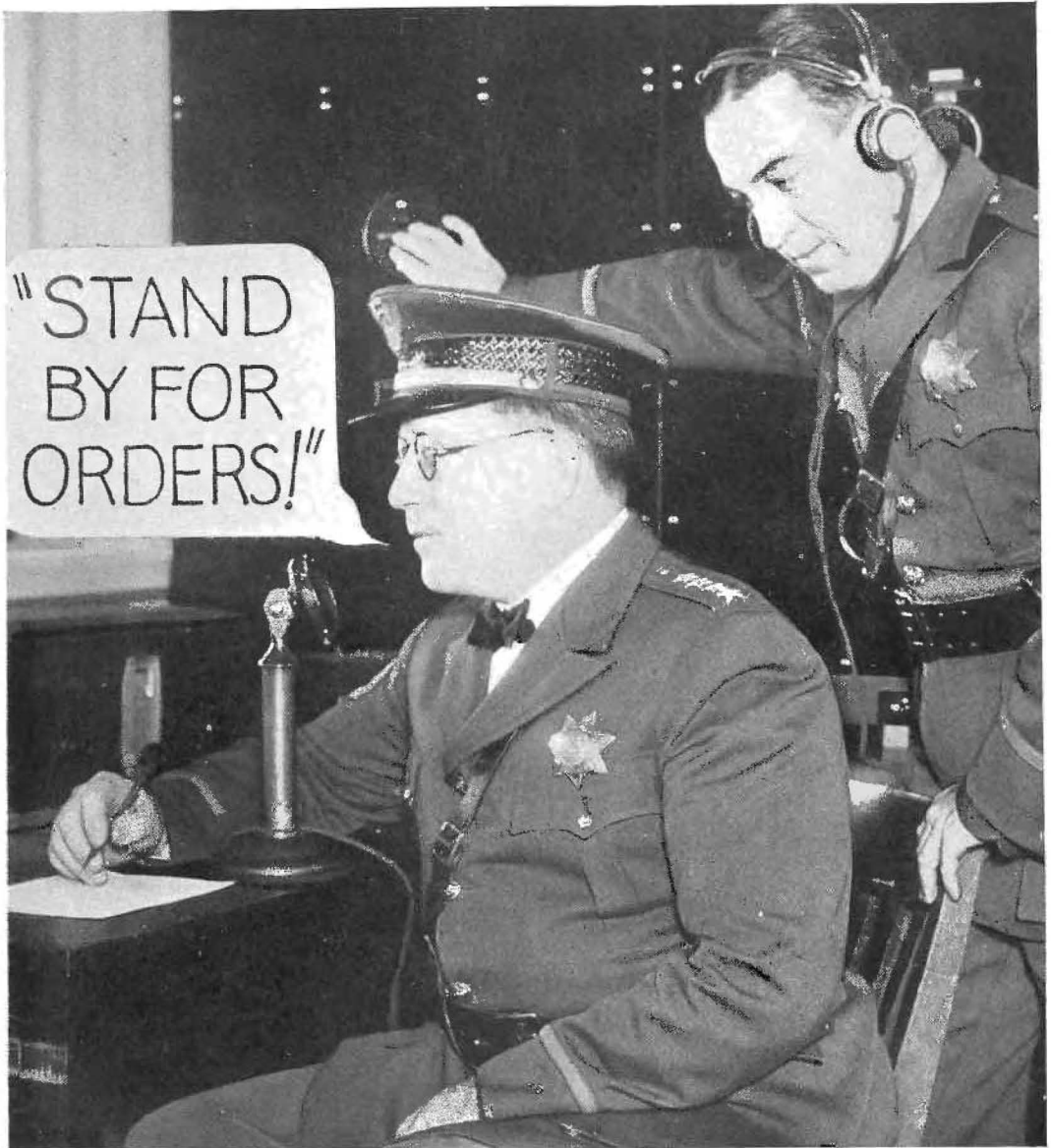
\* \* \*

THE SUMMIT GRADE from the valley side isn't anywhere near as formidable as before, and not as difficult to make as the return trip up from Donner lake to the top.

\* \* \*

THE HIGHWAY WORK on both sides of the summit is the finest mountain road that exists anywhere this writer has been. If accidents occur there they are the fault of the drivers and not of the engineers and workmen who laid out the roadway.—(From C. J. L.'s column "Sacramento" in Sacramento Union, June 29th.)





EVERY SECOND COUNTS in catching a criminal. And the Highway Patrol does not wish to be caught napping. So E. Raymond Cato, the Chief, is experimenting with radio communication for his force. He sent out his first message the other day to officers in the training school, being guided over the "air bumps" by James Roche, Inspector in Charge of Communications. To use the old Amos and Andy signal: "Here they are."

Warm tribute to the tireless and successful efforts of the men of the Highway Patrol to keep traffic moving and accidents at a minimum during the July 4th double holiday has been paid by Chief Cato in a general order.

It follows:

"I desire to commend the entire personnel of the California Highway Patrol for their tireless energy and the splendid devotion to

duty shown by them during the strenuous days and nights of July 3d, 4th and 5th.

"Through your vigilance and activity the hundreds of thousands of California citizens and guests were able to enjoy our highways in safety, for, even though the highways were crowded with vehicles, never before exceeded in numbers, fatal accidents were few.

"Men, I am proud of the record you made and proud of you."

## Patrolman Dazzles Man With Flashlight, Disarms, Arrests Him

**C**OOLENESS under attack and extreme bravery were displayed last month by William C. Fouyer, member of the California Highway Patrol, who, covered with a pistol by an alleged auto thief, dazzled the man with his flashlight, disarmed and arrested him.

The story of Fouyer's quick wit is told in a story appearing in the *Morning Union* of Grass Valley under date of June 21. It follows:

Displaying plenty of cool nerve in facing an asserted Moline, Ill., gunman, Officer William Fouyer of the California Highway Patrol, outwitted George Helta at Floriston at 9.30 o'clock Friday night and landed him in the Truckee jail. Helta was captured after a wide-open chase down the River Highway from Truckee to Floriston.

### ONE SHOT FIRED

Helta, it is claimed, broke into a car in Truckee and stole a revolver. Securing a ride to Lake Tahoe with a motorist "Good Samaritan," the asserted gunman forced the car driver to stop his machine, give up his valuables and also his car. One shot was fired to enforce the demands.

The car owner was given a ride to Truckee by a passing motorist, and, while relating his story to Fouyer, recognized his machine going through town. Fouyer instantly gave chase, and when the bandit refused to stop forced the machine into the ditch. Helta jumped from his car and leveled his gun at the officer.

### DAZZLES ASSAILANT

Fouyer was more quick witted, and placing his spot light on Helta jumped into the shadows and drew his own gun, calling upon Helta to drop his gun or take a charge of lead. Helta threw his revolver over the embankment and submitted to arrest and handcuffs.

Fouyer also recovered the car, the bandit's gun, and placed the man in the Truckee jail. He was taken to Auburn to face the serious charges of highway robbery with a deadly weapon.

### COURTEOUS WARNING

From Chas. J. Carter, San Francisco: I respectfully wish to report that, during the enforcement of his duties, Officer Torres of San Jose found it necessary to warn the writer with respect to traffic regulations, and, in the course of such duty, exercised such unlooked for and unusual courtesy and politeness, together with a kindly attitude unsurpassed in pointing out a proper and legal observance of the laws relating to motorists' rights and what-not, that I feel it incumbent upon me, as a citizen, to acquaint you with the foregoing data.

In these days of haste and thoughtlessness, it is a great pleasure to realize that your department is so ably represented by such competent and wholly human officers as Mr. Torres, and other gentlemen in the Traffic Division whom I have met.

## Louisiana to Lead U. S. in Cash Spent Upon Highway Work

**R**EPORTS from forty-five of the forty-eight states indicate that the 1931 highway construction program will far surpass the amount of work accomplished in 1930, according to a statement by D. H. Lafferty, president of the California State Automobile Association.

"The sum of one billion dollars, in round numbers, will be spent by the states for improving some 40,000 miles of highways and in maintaining the existing systems," Lafferty said. "In addition, there will be about \$500,000,000 expended by counties on local roads.

### LOUISIANA LEADS

"On the basis of reports received, Louisiana will head the list of states with the largest expenditure, which is announced as \$64,700,000. New York will be second with a \$60,000,000 highway program, and Illinois will be third with \$50,000,000. While data has not been received from Pennsylvania, that state will also be well toward the top of the list with large road expenditures.

"From the standpoint of mileage, Louisiana plans to improve the high total of 3200 miles during the current year. Texas has a program calling for the improvement of 2400 miles, and Oklahoma is third with 2300 miles.

### ENCOURAGING ASPECT

"Aside from relieving unemployment and furnishing an outlet for materials, the 1931 highway programs in all states have a most encouraging aspect from the viewpoint of the years immediately ahead. In preparation to meet those future needs, the states are expending approximately \$13,000,000 for new equipment and road-building machinery.

"The increase in federal-aid appropriations from \$75,000,000 to \$125,000,000 annually and the emergency appropriation of \$80,000,000 made available for 1931 have been vital factors in stimulating the states to take advantage of the business lull to meet the demand for more highways."

Pedestrians learning—That is if figures don't lie. At any rate casualty reports for 1930 show that since 1927 the total of pedestrian deaths has increased only 5 per cent, while deaths to persons in cars have jumped to 35 per cent.

## \$30,000,000 Annual Expenditure Proves 24-hr. Day Problem

### TREMENDOUS SCOPE OF DEPARTMENT'S WORK COVERING ENTIRE STATE IS EXPLAINED

By JAMES I. HERZ, Deputy Director

**S**PEAKING jocularly, the first hundred years may be the test of a man's staying qualities; but to a new official of the State Department of Public Works, the test is accomplished in six months. At the end of the shorter period the official has become so interested in his work and accumulated so many responsibilities he is not concerned about a little matter of 99 years.

The Department of Public Works has a 24-hour day of responsibility. It has a 365-day year of planning and building. Highways, bridges, public buildings, water projects, dams, irrigation projects and related improvements—all indispensable in the mechanism of our fast moving age.

There is nothing academic in the curriculum of the department. Its duties call for material results. As the servant of the expectant taxpayer, it must return work of a character that he can literally see and feel and appraise. But by the same token, the hard work involved is made easier by the tangible and enduring results.

#### GOING CONCERN

**—** The Department of Public Works is a going concern. More than \$9,000,000 worth of work on incomplete contracts was taken over when the new department heads took office in January. The legal and moral responsibility for the expending of nearly \$30,000,000 annually falls on the Director and his staff.

In the biennium budget will be found the major plans and specifications—and the bank account. To master the budget's general principles and get a working idea of the details is a test of concentration and study.

The Legislature met in January and the members looked to this department for suggestions and cooperation on all improvement work, dealing, as that work must, in appropriations. In return for the effort made, the Legislature returned to the department a fine measure of confidence and approval.

There was real urgency in the preparations



JAMES I. HERZ

for putting into effect Governor Rolph's program for speeding up improvements for the relief of unemployment. By emergency legislation near \$10,000,000 was made available for the department, much of it to go into public buildings.

That the Governor's wishes were fully met was in evidence when within a few weeks nearly 100 projects were under way. And it should be said in passing that whenever possible the benefits of employment were distributed in the local centers of the work.

The department was successful in advancing the highway construction program. As the press has pointed out, millions of dollars have been put in circulation and thousands of families made to benefit by employment of the bread winners. Nor has the business principle of getting full value for the dollar been neglected.

The end of the first six months found nearly 100 projects of an architectural character under way, and the general highway program had been advanced by at least 90 days. The State's activity as a builder and employer has had a decidedly beneficial effect in light-

## Department Gives Work to Many, but Insists on Returns

ening the period of depression, by furnishing more than 8000 persons with employment and a ready market for machinery, materials and equipment running into millions of dollars.

The Highway Commission is the legislative authority in highways affairs; that is to say, it selects roads for improvement and provides the money allocations. But once this highly important service is furnished, the responsibility passes to the Department of Public Works. The Director receives the bids, opens them and makes the awards. Specifications, contracts and supervision are under his authority. And in the case of public buildings, the responsibility from their initiation to completion rests on him and his staff.

A State agency spending so much money and employing directly or indirectly so many people can not escape a relationship to the unemployment problem, especially when the work of that department reaches into every section of the State. The department has felt the strain. In addition to those seeking employment by reason of a change of administration, thousands out of employment have turned to the State for jobs. We have done the best we could up to the full measure of our budgetary allowances. We have tried to keep the human factor in mind and at the same time secure for the State its just dues in service and improvements.

I am hopeful, too, that we have achieved a measure of success that can not be fixed by highways and building construction. In the thousands of contacts we have made with men having public and private business with the department, we have tried to be fair, candid and to the point.

It is not always easy to say No nor always possible to say Yes; but it is, in my judgment, best to use the word that provides a final answer. Frank contact with people leaves no tacks of unfulfilled promises on the record to puncture public confidence.

Looking back over my first six months in this position, I will say that it has been fine to work with Colonel Garrison and the staff; and it is especially gratifying to acknowledge the friendly cooperation of the public in solving our many-sided problems. To write a log of the six months voyage would have left no time to navigate the craft. Hence the record must be sought in the results obtained.

## Toll of Auto Deaths Caused by Excessive Speed, Says Report

**E**XCESSIVE SPEED—that's the outstanding cause of the "appalling loss of life and personal injuries" resulting from motor vehicle accidents.

So says E. Raymond Cato, Chief of the California Highway Patrol, in his monthly report.

As a result of a special analysis of auto accidents made for the first four months of the year and compared with the same period of last year, it is noted that there has been an increase in auto accidents of 13.37 per cent with a resultant 10.71 per cent jump in deaths.

"The California Highway Patrol is particularly interested in deaths occurring outside incorporated cities," says Cato. "Therefore it is of interest to note that such deaths increased only 2.24 per cent, while those inside incorporated cities jumped 17.88 per cent during the four-month period."

As a means of cutting down this toll of life and limb, the report recommends redoubled efforts to wipe out defective brakes. During the month of May 9514 machines were tested and 9.85 per cent were found defective. In all there are 1345 stations authorized to test brakes.

A decrease in the number of applications for drivers' licenses is reported. Applications numbered 34,499, a decrease of 6690 from the April figure.

The actual number of licenses issued was less by 5008 than the total issued the previous month, the May figure being 30,605. Of these, 60 per cent were operators, 21 per cent duplicate operators and 19 per cent chauffeurs' licenses.

State examiners conducted 55 per cent of the examinations and 45 per cent were given by the auto clubs, police and other authorized agencies.

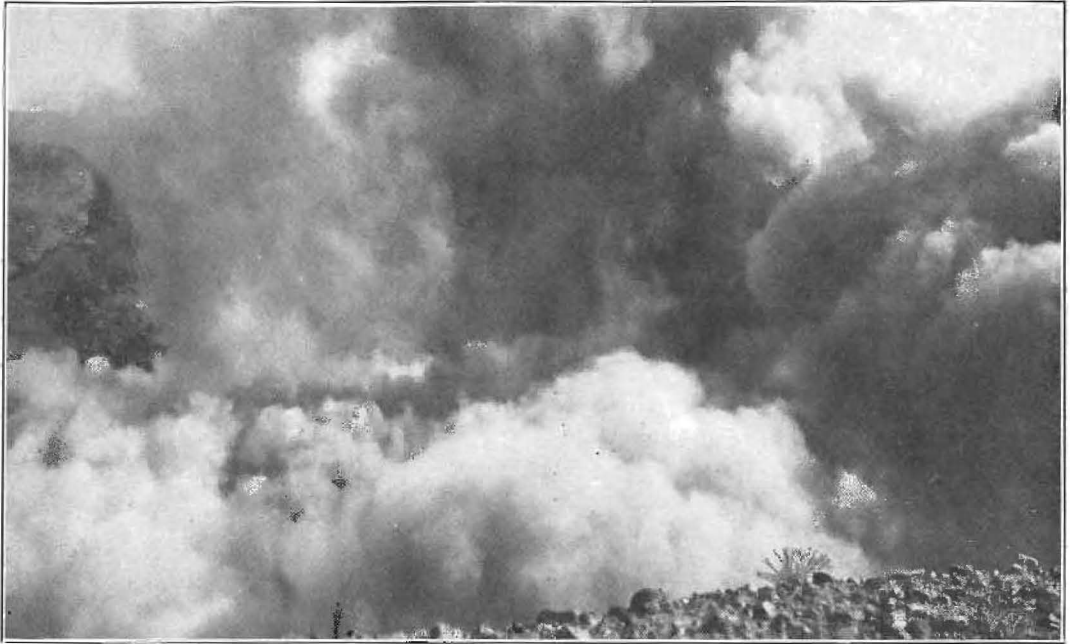
### PERSONNEL CHANGES

The following personnel changes were announced this month by Highway Patrol headquarters:

Patrolman Jean S. Thayer appointed acting captain in Colusa County to replace District Inspector R. L. Sheldon, assigned to special duty.

Inspector Harvey Blackwell named acting district inspector in District No. 7, George F. Moynahan, temporarily assigned as assistant supervisor in the Bureau of Traffic Enforcement.

Inspector Paul Maxim assigned to Bureau of Weights and Commercial Vehicles.



**ALL SMOKED UP**—But it soon will be a road. This is a scene on the Arrowhead Trail on the State Highway to Boulder Dam. It shows blasting operations, the cameraman catching an explosion in full force.

## *He Urges Expansion Of Highway Programs*

Growth of motor vehicles, both in number and speed, has far outstripped the highway facilities of the United States, and that is one of the principal reasons for the congestion, danger and discomfort of much of the motor travel of today, said W. R. Smith, president of the American Road Builders' Association.

"There is urgent need at the present time for a marked expansion of highway programs," stated Mr. Smith. "This is especially true of road bond issues which bring immediately the benefits of good roads without unduly increasing taxes. Road bond issues are usually paid for by motor vehicle taxes, which do not increase the burden on real estate. The roads are paid for by the people who receive the most benefit—the road users.

"The United States can not afford to be without safe roads. The death toll of 32,500 annually with 950,000 injured, combined with a property damage due to motor accidents estimated at a billion dollars, makes safe highways a profitable investment," declared Captain H. C. Whitehurst, engineer of highways of the District of Columbia, in discussing the same subject.

## *Will Earl Lee Kelly Use Gavel as Weapon?*

Apparently there's a chance for a good sports writer to turn publicity man.

Riverside Junior High School has presented Earl Lee Kelly, chairman of the California Highway Commission, with a beautifully carved orange wood gavel with which to direct future meetings of the commission.

The presentation was made to the chairman by Commissioner Frank A. Tetley, who explained that the school children of Riverside under the direction of Ira Landis had made the gavel for use of the chairman in keeping order.

Mr. Kelly thanked the commissioner for Riverside's kindness and a resolution was adopted ordering a letter of thanks sent to Mr. Landis.

But—the publicity man is needed to spread tidings concerning Mr. Kelly's height, weight and reach. At that the gavel might help.

It doesn't take much of a car, at that, to last some drivers a lifetime.

Too many men are out in the back yard looking for four-leaf clovers when opportunity knocks at the front door.—*Forum*.

## Spectacular Job at Bottom of Sea; 10 Boats, 33 Men Remove Phone Cables

**S**PECTACULAR as the building of the \$75,000,000 San Francisco-Oakland bridge, one of the world's largest, undoubtedly will be, it is being preceded by one of the most difficult jobs in western telephone history. And this job, too, has spectacular features, mostly under water!

Squarely on the sites of two of the bridge's piers, large as city blocks, are 12 huge telephone cables. They and their lesser predecessors have held this approximate route for nearly a half century, ever since the first cable of 14 wires was laid across San Francisco Bay in 1884. The 12 cables now hold well over 5000 wires, with a peak capacity of 270,000 words a minute. A 36-page newspaper of solid reading matter every minute!

### TEN BOATS USED

It is the hope of Charles H. Purcell, State Highway Engineer, that the bridge can be completed in 1937. But before it can be started the pier foundations must be laid. But the foundations can not be laid until the cables are out of the way.

Desiring to cooperate, and to speed the bridge as a great community enterprise, the Pacific Telephone and Telegraph Co. assembled a fleet of 10 boats and 33 men, including a deep sea diver, a life saver, and a squad of seven code signalers. Then on June 30 began a 90-day emergency night-and-day task to move the 12 cables 1000 feet north of the bridge site.

The cables, over two miles long, are buried, for about 1000 feet of their length, under 15 feet of mud and debris accumulated through the years. Each cable must be lifted from the mud and raised 100 feet to the surface of the bay before being moved. The cables have never been disturbed in this way. To pick up one of these 100-ton cables and raise it at one point as high as a 10-story building, and then carry it 1000 feet north, puts an unanticipated strain upon it.

### ONE CABLE BREAKS

The danger of splitting a cable and interrupting telephone service was early seen as grave. Extreme care was taken in planning

and executing the job. But, despite all precautions, as the second cable was raised, on the fourth day of operations, it broke in two. Fortunately, the break occurred after the day's traffic peak, and few telephones were affected. Should a larger cable break, one of the two, for instance of the world's largest size, more service would be disturbed, but only for a short time, since spare special "stand-by" lines can be connected in from 15 to 70 minutes. Immediately after the break, the telephone company appealed to patrons to bear with it in a difficult situation.

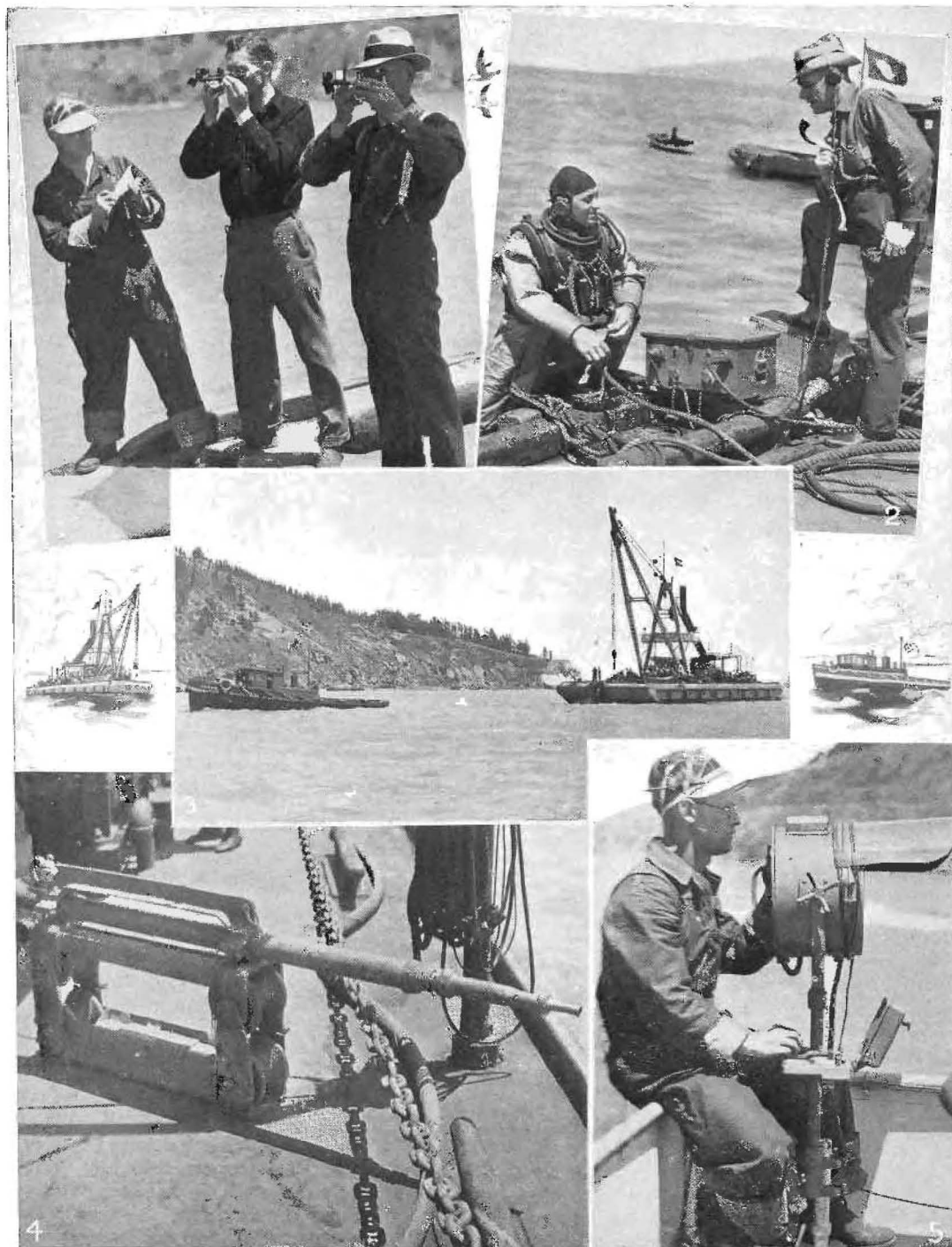
The deep sea diver engaged in the work is William Reed, a World War naval wreck diver, and one of the heroes of the raising of the American submarine S-51, which sank off Providence, R. I.

### SPECTACULAR JOB

The diver's work is somewhat spectacular. One hundred feet under water, he directs the washing of the 15 feet of mud from the cables with a powerful stream of water. Reed's helmet is equipped with ear phones and a transmitter with which he talks to telephone men on the company's barge, "Pacific," just above him. He directs the operations of derricks and winches in untangling the cables. The stream of water, under 100 pounds pressure, is played upon the cables through a hose equipped with nozzle attached to a "wagon" with runners sliding over the cable. This "wagon" was specially designed by local telephone people for this particular job.

Before the three months' job of moving the cables began, a two months' game of "hide-and seek" was necessary to locate them under the 15 feet of mud. No one knew precisely where they were. All anyone knew was that they were "out there in the bay." Only when a ship's anchor drags across a cable and breaks it is it necessary to find a cable.

Now, however, all 12 cables must be found. A giant electric "detector" was built by the local telephone people to locate the cables and chart them on a map. This charting was done to prevent delay when the 90-day job began.



"EXCUSE IT, PLEASE!"—Shades of Jules Verne. It's a great work this—moving telephone cables from the bottom of the San Francisco Bay. No. 1 shows how they "shoot" positions; in No. 2 is a U. S. Navy hero, Diver William Reed, who took a prominent part in the rescue work of the S-51. He's getting final instructions from Superintendent F. O. Edmunds. They talk while the diver is under water through the phone around Edmunds' neck—and they're never cut off. No. 3 is the "Pacific," barge flagship of the telephone fleet; No. 4 an insignificant looking gun, but it washes the mud off the twelve cables buried fifteen feet under the waters of the bay; No. 5 gives an idea how they talk to shore.

## *“California Must Get Together;” Then U. S. Water Aid Seems Assured*

**I**F THE people of California will iron out their little differences regarding the water problem of the State, then the fight for conservation and proper disposition of this precious fluid will be over.

“I am confident that the Congressional committee which has just toured the State is ready to recommend to Congress that Federal assistance in the form of a loan to the people of this State be granted.

“But that recommendation will not be forthcoming until California appears at the National Capital with a united front, each section of the State agreed upon a program.”

That's how Colonel Walter E. Garrison, Director of the Department of Public Works, sums up the result of the tour throughout the State just concluded by the subcommittee of the House Appropriations Committee. The Colonel and Edward Hyatt, engineer in charge of the Division of Water Resources, accompanied the visitors on their trip.

### TO SELL POWER

“It is my opinion,” continued Garrison, “that it will be necessary for the voters of the State to pass a constitutional amendment which will permit the State to develop and sell power.

“In this connection I might add that it appears to be the attitude of the Congressional party that Congress will not come to the aid of this State if there be any danger of the power thus developed falling into the hands of the power trust.

“It seems we must guarantee that such sale shall not be possible.

### UNITY ESSENTIAL

“In the meantime, Frank Murphy, chairman of the committee, told me that Congress will not be concerned with the location of any particular dam, the site of a power plant or the particular diversion of any stream in California,” said Colonel Garrison. “All Washington will want to know is:

“Has California a definite program for relief of its most serious problem—**WATER SHORTAGE?** Does California come before us united on a policy to be adopted which

will wipe out, for all time, the menace of water famine?

“That's what we have to do,” continued Garrison. “I think I can safely say that every member of the party which has just visited us is ready to recommend relief for this State.

### GET TOGETHER

“Not only is Murphy, as the Republican chairman of the subcommittee, sympathetic, but Congressman Edward T. Taylor, Democrat of Colorado, who may become chairman should the Representatives be organized with a Democratic majority, told me that California stands an excellent chance of getting what it wants in water relief legislation. But he reiterated what Murphy said:

“‘Get together, California! Present a united front to Washington. Settle your differences and the battle is won.’”

The Congressional party arrived in California July 4th after inspecting the Boulder Dam project. A subcommittee of the House Appropriations Committee, they viewed the entire California water problem and concluded their State visit at Klamath Falls on July 14.

### GOVERNOR'S PLEA

Headed by Frank Murphy, chairman, of Ohio, they were welcomed officially to the State on Sunday, July 12th, by Governor Rolph at the capital. In addressing the committee and their wives, the Governor told the visitors that California is in dire distress due to the acute water situation. He pointed out that the State's great need was to build impounding dams to store the winter flood waters.

“California is a mighty State,” the Governor continued. “If we can obtain the water which is our dire need we can continue to grow. We will come to you to borrow the money so to conserve this water like business men would. We need the money at the lowest possible rate of interest and as quickly as possible. We will repay it.”

In replying, Murphy said:

“I feel confident that the National government will be sympathetic toward California





**"WATER OUR GRAVE PROBLEM!"** That's Governor Ralph's message to Congressional committee studying California's gravest issue. The Governor is shown here, surrounded by the visitors as he officially says "Howdy" to Chairman Frank Murphy of Ohio.

in the solution of the serious problem now confronting the State.

"The United States will come to the rescue of California in preventing what might become an enormous calamity, I believe. But first the entire State must agree upon a unified and businesslike plan and guarantee the government that any money advanced will be repaid."

Edward T. Taylor of Colorado, ranking Democrat on the committee, supported Murphy's viewpoint.

Congressman Addison T. Smith, Idaho, Republican, chairman of the House Irrigation Committee, stressed the importance of state-wide unity on the problem. He pointed out that California must concentrate on a unanimous proposal to Congress.

#### SHOW SYMPATHY

"Two of California's delegation in Washington, Senator Johnson and Congressman Swing, were able to obtain a \$165,000,000 Federal appropriation for the Boulder Dam

project, so I am inclined to believe that Congress will consider your appeal in a very sympathetic manner," he said.

The delegation included Congressmen Murphy, Burton L. French, Idaho; Edward T. Taylor, Colorado; William W. Hastings, Oklahoma; Don B. Colton, Utah; Addison T. Smith, Idaho; Robert Luce, Massachusetts, and Congressmen Harry L. Englebright, Clarence F. Lea and Phil D. Swing, California.

The Interior Department was represented by Elwood Mead, Commissioner of Reclamation; while F. J. Bailey, Assistant Budget Director, and William A. Duvall represented the Treasury Department.

Members of the California legislative committee in the party were Senators Crittenden, chairman; Frank Mixter, Tulare; W. P. Rich, Marysville, and Ralph Clock, Long Beach; and Assemblymen Robert Patterson, Taft; Edward Craig, Brea; Harold Cloudman, Berkeley; Frank S. Israel, Stockton; John E. Frazier, Gridley, and Robert P. Easley, Antioch.

## Ho Hum! Just a Day in Life of Patrolman

A shiny white motorcycle snorted and coughed its way out of a division headquarters of the California Highway Patrol with Officer A— astride, promptly at 7 o'clock on a bright July morning.

Within an hour he had tagged a truck driver for overloading, given road directions to two tourists and reprimanded a traveling salesman for careless driving.

Two miles farther down the road a woman ran out screaming that her child had a safety pin in her throat. Officer A— took the child in his lap, drove seven miles to a doctor, had the pin removed and returned the child as good as new. Somewhat later, he found a weeping boy beside a dog whose leg had been broken by a passing car. He bound up the leg with pieces of wood and tire tapc and sent the boy home happy.

Shortly after lunch Officer A— caught two motorists racing on the highway and tagged both. At 3 p.m. he passed a farmhouse and noted a barn on fire. Hurrying in, he led a cow and a goat to safety and sounded an alarm.



At 6 p.m. Officer A— reported back to headquarters.

"A quiet day," he told his Captain —.

Those are some of the things that happen to a California highway patrolman in his regular daily grind of duties. The events cited didn't all happen on the same day, of course. But they did happen over a period of a few weeks to members of the same county squad, as records of the patrol will show.

The conception the average person has of the highway patrolman is of one who rides furiously up and down the highways handing out tickets to speeders.

This is far from correct, as only a small part of his duties is handling speeders. The traffic officer is called upon to do a little of everything and the good officer is one who knows how to adjust himself to unusual situations.

Almost every officer can tell of numerous strange things he has had to do in the course of his work.

For example, Captain T. B. Myers of Lake County lists as one of his accomplishments the saving of a woman's life who was being beaten to death with the heel of a shoe by an irate husband. On another occasion Myers met an airplane bringing a doctor and a pulmotor and rushed both to Rainbow Camp on Clear Lake to save a drowned boy's life.

Sometimes it becomes necessary for the officer to abandon his motorcycle and take to the water. Captain G. W. Brown of Sutter County tells of such a case in the flood of 1929 in Marysville when he and one of his men worked for two days in a rowboat



By **RUSSELL BEVANS,**  
Chief Inspector

## Strange, Weird Gallant Deeds Some of These!

rescuing marooned families, dogs, chickens, etc., from the tops of buildings surrounded by water. One aged man was carried to safety after he had been on the top of a small building for a day and night.

Captain Fred A. Goodloe has had many a race with speeders, but the race he will remember longest was won from the stork over 17 miles of Shasta County's roughest and crookedest road. He had found a car on its side and an excited young husband standing beside a pale 18-year girl on a pile of bedding. Let Captain Goodloe tell the rest of the story:

"I'll never forget that ride to the hospital. It was 17 miles of pain and fear for the girl, 17 miles of anxiety for the man and 17 miles of curves, hills and loose gravel for me at a speed sometimes 85 miles an hour. But the old white goose outran the stork and a fine 8½-pound boy was born 10 minutes after we arrived at the hospital."

When the St. Francis Dam broke in Ventura County and sent a great flood of water down the valley, Thornton Edwards, a member of the patrol, risked his own life to ride from home to home, warning the people to escape to high ground. Edwards later received a medal for his brave deed. He is now Chief of Police of Santa Paula.

Don't think that every time an officer blows his siren for you to go to the side of the road he is going to arrest you. He may have a message for you instead.

Some years ago, Inspector W. E. Snell and Officer J. E. Reynolds caught an escaped convict at Tehachapi. While Snell was talking over the phone to the Sheriff the escape grabbed Reynolds' gun from its holster. Reynolds dropped to the floor and yelled "Bill!" Snell turned, drew his gun and fired just as the convict fired. But Snell was the better shot and the convict is dead.

Captain G. F. Daley of Siskiyou County once noted a car parked on the roadside. Investigating, he found a mother with three young children and a man sick with tuberculosis. They were penniless and trying to get to Arizona. Daley drove six miles, brought back bread, butter, milk, bacon and beans and fed the family. He gave them a few dollars and sent them on their way happy.



Captain H. C. Meehan was recently called by a man who informed him a friend was ill in a Sawtelle hospital and that he was trying to rush two men to give the patient a blood transfusion. Meehan detailed a car for the trip. The patient recovered.

## Workings of Highway Commission As Revealed by One of Its Members

Just how does the California Highway Commission operate? How does it go about handling the 7500 miles of roadway now in the State system? How are the highway problems of each section of California studied and disposed of? These are some of the pertinent questions which Harry A. Hopkins, commission member from Taft, answers and explains in the following authoritative article on the procedure and policies controlling the activities of the commission.

By HARRY A. HOPKINS, Highway Commissioner

**T**O attempt to write an article on the above subject after being a member of the California Highway Commission for only six months might be termed impertinence. However we live to learn and in absorbing as much as one human mind could in so short a period we find we could live several lives and not know all that is to be learned in this department of the State Administration. It is a progressive work and every day new developments enlarge our understanding.

The procedure controlling the activities of the California Highway Commission or, as the Legislature terms it, the Division of Highways in the Department of Public Works, is governed to a large extent by the legislative acts of the California State Legislature.

### SCIENTIFIC BASIS

The most recent act of the Legislature is the Breed Bill of 1927. This provides a scientific basis of operation and its provisions provide for the division of revenues, classification of highways, division of the State into Northern and Southern groups of counties as well as other important provisions too numerous to mention. Its sections recite, in part, what proportion of the revenues must be used on Primary and Secondary Highways and joint highway districts as well as segregating the funds for construction, reconstruction, maintenance and repairs, administration of the department of the California Highway System.

In fact the Breed Bill provides for most of the procedure that governs the activities of the Division of Highways. However, the Commission has initiated other important procedure and policies.

If the public could be informed more regarding these provisions, under which the Commission works and the laws that make



HARRY A. HOPKINS

that body possible, it would, in a large measure, clear up much misunderstanding in reference to the details of the work. While Governor Rolph has appointed to the California Highway Commission one member from the northern part of the State, one from the north central part, one from the central part and one each from the southeast and southwest parts none represents any particular section of the State. All are appointed at large.

## Public Meetings Supply Much Data

Continued from Preceding Page

Yet each naturally is more familiar with that portion of the State surrounding his residence.

**Sectional favoritism is not possible both because of Governor Rolph's broad view on State Government Administration and the provisions of the Breed Bill. Yet the Chairman of the Commission has always shown the courtesy of securing the ideas and recommendations of Commissioners being nearest sections where some problem has arisen and upon which suggestions are invited.**

### COMPLETE UNITY

However after a matter has been fully presented and a clear understanding is had by the Commission, it immediately assumes the status of a State wide matter and Commissioners other than the one residing nearest to its origin might make and second motions for its disposal. The interests of one Commissioner are the interests of all the others.

The execution of the requirements and provisions of the laws appertaining to highways is many times misunderstood or not known to have had their origin in the Legislature. **Citizens many times are under the impression that the California Highway Commission originates the methods or the system under which the Division of Highways is working and feel that many statements and decisions affecting problems and projects are the result of a Commission policy.**

### JUSTICE FOR ALL

Handling the affairs of a Commission that has the building and maintaining of ten per cent of the 75,000 miles of roads in California, or 7500 miles now in the California Highway system, naturally would call for rules of procedure in the conduct of the meetings and attending to its routine matters. Many contingencies arise that are unlooked for and many problems are presented that also necessitate some definite policy to govern those that are similar in character. The Commission must work as a unit.

Realizing that in order to do justice to all parts of the State and secure the best results there is an agreement among the members of the Commission and the Director of Public Works that the majority rule will prevail in all matters that come up for a vote. This was the first policy promulgated upon the organi-

zation of the present California Highway Commission.

In carrying out the duties of the Commissioners they are counseled by the attorney for the Commission in legal matters and by the State Highway Engineer in matters of engineering. The Director of Public Works is the directing executive. In a body comprising five men there is represented as many different lines of endeavor. Each has the experience of his own lines of business to assist in deciding the problems that come before the Commission. While none are engineers or practicing attorneys yet each has a background of experience on highway committees of Civic and State organizations as well as experience in City and State highway construction through connections in Municipal and State Governmental official life.

### MEETINGS PUBLIC

The meetings of the California Highway Commission are public. Outside of the routine work that the operations of the Division bring before the meeting, covering resolutions allocating funds for contingencies and projects, votes on routes and signing of layout for the same, transferring of funds from time to time, much time is required for public hearings at regular meetings. These hearings are public and are given the citizens of the various parts of the State upon their application to the chairman of the Commission, usually through its members, and the chairman offers every opportunity for all concerned in controversial matters and otherwise to express their views and present their evidence to the Commission.

### IMPORTANT POLICY

These hearings have brought to the attention of the public, policies that necessarily had to be put into effect where similar conditions prevailed. One very important policy is that in relation to routes that the smaller cities insist should go through their municipalities. **The Highway Commission desires to cooperate with all cities in the State in this respect, providing the route desired can be built to satisfactorily handle state traffic and in accordance with good engineering requirements and principles. With this understanding the Commission will adopt**

## Highway Commission Working as Unit to Build up All State

such route to connect with the State highway, provided the elective body of the city adopts such route by resolution and obligates itself to provide the necessary rights of way to make the street eighty feet wide, and advising the method to be used to finance the same.

When evidence has been shown the Commission that these requirements have been met, then the Commission will build a hard surfaced strip through that street on the adopted route as wide as that outside the city that it approaches.

### NUMEROUS DUTIES

Other policies or duties of the Commission, self imposed, are holding hearings in the several communities, attending Civic and State organizations, viewing projects under construction as well as different parts of the highway system, and disseminate such information as will give better understanding on the part of our citizens of the methods, requirements and laws provided in carrying out the business of this Division of the Department of Public Works.

One item that is not understood by the general public is that the Commission does not let contracts for projects. Bids are called for by the State Engineer and the Director of Public Works lets the contracts. The Commission allocates the money for these projects for which bids are called.

### WORK AS UNIT

Many invitations are extended the Commission to meet with organizations and cities in almost every part of the State. An early accepted policy, presented by the chairman of the Commission, was to accept as many invitations both in a body and as individual members as consistent and possible.

In conclusion there is one thought that I would like to express. **It is that the members of the California Highway Commission are working in unison and cooperating to the extent that the wishes of Governor Rolph will be carried out to the fullest in that this Commission is a Commission representing the citizens of this State and that through their procedure, duties and policies they are working for the best interest of every part and for the upbuilding of our great commonwealth, the State of California.**

### ISTWAY OADRAY OGSWAY! COPS ACQUIRE "CULTURE"

They are telling this one on big, genial Bert Reeves, sergeant of the Marin County State Police patrol.

"Say, Hewie," booms the ticklish one, "I understand the next class at State Highway police school in Sacramento this summer is to include a class in Pig Latin like the school kids talk."

"You don't say so," replied R. A. Hewitt, the demon bike rider. "What's the idea of learning that stuff?"

"Why simply so that we can talk to the road hogs," chortled the "Big One," as he deftly and gracefully executed a back flip.—*Sausalito News.*

## Inter-American Road Progress Outlined

Progress of the Inter-American Highway was outlined to a group of Latin American diplomats and officials of the United States Government by Señor Tomás Guardia at a luncheon in Washington recently.

Sr. Guardia is President of the Inter-American Highway Commission and Chief Engineer of the Central Highway Board of Panamá. The luncheon was given in his honor by the Executive Committee of the Pan American Confederation for Highway Education. Dr. L. S. Rowe, chairman of the Committee, and Director General of the Pan American Union, presided.

The total length of the highway from Laredo, Texas, to Panamá City is 5200 kilometers, Sr. Guardia said, and of this distance two-thirds of the mileage is built, under construction, or easily passable in dry weather. The distance remaining to be built is 1850 kilometers, according to his report, and virtually all of this route has been surveyed.

In the achievement of the ultimate goal of a highway connecting the United States with the Central American countries and Panamá, Sr. Guardia sees no insuperable obstacles. The problems of financing and construction he considers as subordinate to the project of rousing the enthusiasm of the people and nations through which the highway is to pass.

"We must bring the minds of the people to a state where they will appreciate that roads, though entailing exertion, expense and perseverance, are well within the reach of all and that the benefits derived soon surpass the sacrifices involved," he said.

Did you know that: Ninety-four per cent of all automobiles stolen during 1930 were recovered?

## CALIFORNIA HIGHWAYS AND PUBLIC WORKS

Official journal of the Division of Highways of the Department of Public Works, State of California; published for the information of the members of the department and the citizens of California.

Editors of newspapers and others are privileged to use matter contained herein. Cuts will be gladly loaned upon request.

COLONEL WALTER E. GARRISON.....Director  
ERIC CULLENWARD.....Editor

Address communications to California Highways and Public Works, P. O. Box 1103, Sacramento, California.

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### “Wise Recommendation” Says Los Angeles Times

It has been recommended by the directors of the Automobile Club of Southern California to the Supervisors of Los Angeles county that the present county motor patrol of highways be given in charge of the State's traffic department, thus saving \$161,000 a year which, it is suggested, might be spent in grade separations and other highway improvements.

This seems to be sound sense. The present patrol service is good but too expensive in that it involves a duplication of work and of pay rolls. It has been pointed out to the Supervisors that the county has to pay 40 per cent of the cost of the State patrol anyway, this being its share of the taxes used for this purpose.

No complaint whatever is made by the Auto Club of the work of the men of the county patrol, in fact, they have nothing but praise for it. But the duplication of service is felt to be unnecessary. Perhaps, also, if the State patrolmen had no assistance from the county they would feel that they had greater responsibility and could perform their work with freer hands. In any event, it does not appear that they would have so much more to do that they could not render efficient service.—(L. A. Times editorial)

### ROMANCE OF INSURANCE

How a business that started with less than \$100 grew into a six hundred million dollar annual expenditure is recalled by the anniversary of the first fire insurance policy ever written on an automobile, says a leading insurance publication. This policy was written June 2, 1902, by the Boston Insurance Company on a two-seated single cylinder French make car. The insured was protected only against fire in the sum of \$1,000.

The premiums paid in California last year were more than \$50,000,000.

## Unemployed Given Work on Highways As Relief Measure

(From San Luis Obispo Telegram)

WITH the establishment of unemployment camps on the upper end of the San Simeon-Carmel highway where hundreds of men were employed and with the enlargement of the maintenance crews, Lester H. Gibson of San Luis Obispo, district engineer of the State Highway Department, estimates that 600 men were employed in the district.

\* \* \*

The policy of giving positions to unemployed men on the road work of the district was a part of the plan of the department of Public Works to aid in relieving the unemployment of the nation.

\* \* \*

The funds provided for the purpose are now spent, and the relief work is over. Mr. Gibson says that at the close of the period over which employment was furnished it was evident that unemployment situation of the winter months was considerably relieved. The men were leaving the highway department to find work in other kinds of business.

\* \* \*

The number of dependents of each of 600 men employed has averaged about four to the man, so that the district has taken care of about 3000 individuals, Mr. Gibson estimates.

By means of questionnaires, the highway department determined the need of the individual before he was employed in order to give work to the most deserving.

\* \* \*

The men were willing workers, eager to demonstrate their appreciation of the jobs offered. The men employed on the maintenance crews were given three days' work per week so that by employing two separate shifts, work could be furnished to a larger number of men, and a greater amount of relief given, Mr. Gibson said.

### A MOTORIST'S PRAYER

Teach us to drive through life without skidding into other people's business. Preserve our brake linings that we stop before we go too far. Help us to hear the knocks in our own motors and close our ears to the clashing of other people's gears. Keep alcohol in our radiators and out of our stomachs. Absolve us from the mania of trying to pass the other auto on a narrow road. Open our eyes to the traffic signs and keep our feet on the breaks.—*Outlook*.

## Gleaned From Letter Bag

### Highway Patrol Wins Commendations; Courtesies and Firmness Both Praised

From Mrs. C. L. Corson, Burlingame: Having just returned from a trip to my mother's, I wish to take this opportunity of thanking Traffic Officer 418 for his wonderful service in helping to check a fire on the "Coward Place" near Arno. Had it not been for his wonderful help the fire no doubt would have taken dwelling and all frame buildings. Kindly accept my thanks for the services rendered.

\* \* \*

### SPLENDIDLY EFFICIENT

From Robert and Olive d'Erlach, Berkeley: We hereby desire to express our appreciation of the splendid and efficient aid rendered to us by Officer Eisenhuth of El Dorado when he found us injured on the Mother Lode road.

Our machine having left the road, we were helpless and Mr. Eisenhuth never left us until after he had seen us safely installed at the Placerville Sanitarium. He also communicated with my firm's district representative and took good care of our belongings.

In other words, Mr. Eisenhuth not only did his official duty, but extended courtesy and sympathetic attention to details which meant much to crippled folk in strange surroundings.

The department as a whole and Mr. Eisenhuth in particular has our sincere regard and esteem.

\* \* \*

### LODGE IS GRATEFUL

From E. Hansen, San Francisco: On behalf of Oriental Lodge, No. 144, F. & A. M., I want to express to you our thanks for the fine service you rendered in arranging escort of Captain Joe Blake and Officer Tom Taylor on our recent pilgrimage from Sacramento to Colfax. The officers handled our caravan in the most efficient manner.

\* \* \*

### HE'D EVEN TOW HIM

From L. P. Aldrick, Oregon: It is with considerable pleasure to me to be able to report to you a little incident that occurred just north of Vallejo.

I was driving to San Francisco and ran out of gas about two and one-half miles north of Vallejo. In free wheeling down a little grade, I noticed one of your highway patrolmen seated in his car watching the traffic. He evidently observed that I was well to the side of the road and going rather slow as compared to the traffic in general, sensing without a doubt that I was in trouble. My car finally stopped 300 or 400 yards beyond where he was stationed, and he immediately came down to see if he could help me and suggested if I had a tow line he would be glad to tow me to the next service station. He was very courteous and apparently willing to do what he could to assist me.

### This Writer Even Likes His Arrest; Multi- farious Duties Done by State Squad

During the past year I have made seven or eight trips to California by automobile and have observed that your patrolmen are a credit to your State. It is with pleasure that I report this incident of your Officer No. 39.

\* \* \*

From L. O. Myers, D.D.S., San Francisco: May I take this opportunity of telling you of the courtesy of one of your men. This officer gave me a tag for lack of trailer license, a matter that I was in ignorance of.

There is so much difference in some men that my friends and myself, on this trip, want you to know that an entire force made up of men of his type would be a credit to the State of California. This officer could give anybody a tag and make him like it. As near as I can read the name it is a Mr. Monteverde, No. 143.

\* \* \*

### ACCIDENTS CUT DOWN

From W. C. Parcher, Independence: Having been much concerned during the past few years over the number of serious accidents that have occurred on the State highway through Inyo County and having noted with much pleasure the marked decrease in these accidents since the establishment of the patrol system here, I wish to congratulate you upon the personnel of your Inyo County squad.

The men of this squad, under the very efficient direction of Captain Buer, are doing a fine job. This was especially noticeable during the Decoration Day week end when the heaviest traffic ever known in this county was handled without an accident or serious trouble of any kind.

\* \* \*

### FUNERALS ESCORTED

From R. L. Tudsbury, Loomis: May I not apprise you of our family's deep appreciation of the services rendered to us during the funeral of my mother last May, as well as the funeral of my father this May by your traffic officers of Placer County?

I wish to take this opportunity of commending most highly the captain of your patrol, Charles LaPorte, for the kind, efficient and understanding handling of our two caravans.

\* \* \*

### SHORT, BUT SWEET

From Bulah Baker Hughes, Davis: It affords me great pleasure to commend to you the courtesy and intelligence of Officer Burle Reynolds, who was able to help me when our car stalled above Kyburz last week.

## New Labor Laws Will Be Enforced

Continued from page one



ALL IS CONFUSION to the layman, but this equipment is part of that which is being employed to rush the Newcastle tunnel job to completion. When completed, the tunnel will take highway traffic under the city and relieve considerable congestion.

### PROPOSED WORK—(CONTINUED)

Road	Limits	Amount
V-SBt	Bridge	\$16,000
VIII-SBd	Devore to Alray	437,200
IX-Mno	Casa Diablo Hot Spring to Deadman Creek	183,600
V-SE	Los Alamos to Solomon's Summit	448,500
VII-La	Washington Blvd. to El Segundo	400,000
VIII-SBd	Grade separation	60,000
I-Mer	Little Dann Creek to Leggett	85,000
IV-CC	San Pablo Creek to Crockett	396,000
II-But	Pulga River to county line	483,400
VIII-imp	Coyote Wells to Dixieland	492,400
VIII-imp	Dixieland to 7 miles west	176,000
VII-Ven	Ventura to El Rio	100,000
II-Tri	Approaches to Trinity River bridge	27,500
V-Sho	Los Berros Creek to Arroyo Grande	336,100
I-Hum	Redwood Creek to Willow Creek	58,400
V-Mon	Approaches to Brodley bridge	40,000
V-SE	Los Alamos Creek bridge	31,000
V-III-Men	Russian River bridge	36,000
III-Pla	Gold Run to Airport	780,000
VII-Ors	Newport to Corona Del Mar	281,300
VII-La	Las Flores Canyon to Santa Monica	516,200
I-Hum	Bridge	43,500
VIII-Riv	Mecca-Blythe road	300,000
X-SJ	Waterloo road to Clements	213,600
III-Pla	Grade separation	26,000
VI-Ker	Kern River bridge	406,000
Total		8,726,500

The Department of Architecture announces a formidable list of projects also. Those herein enumerated will be under actual construction in the field during this half year.

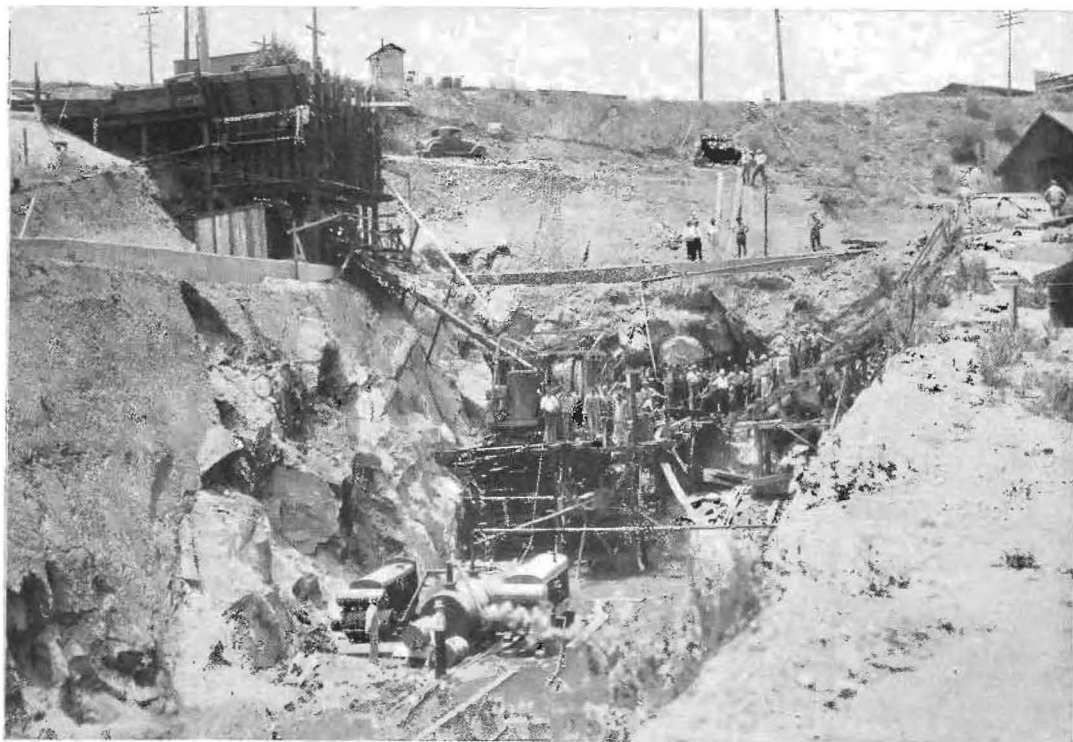
Institution	Project	Amount
San Francisco College	additional classrooms	\$100,000
New State Hospital in southern California	second unit for patients	350,000
National Guard	Yuba City Armory	25,000
Industrial Home for Adult Blind	superintendent's residence	15,000
Napa Hospital	improvement to wards	25,000
Mendocino Hospital	laundry	60,000
Sonoma State Home	school and gymnasium	40,000
Sonoma State Home	fire house	31,000
State Narcotic Hospital	two ward buildings	40,000
Preston School	shop building	25,000
Santa Barbara College	training school	70,000
Patton Hospital	dairy unit	25,000
Agnews Hospital	kitchen equipment	26,000
School for Deaf	improvements	2,340
Napa Hospital	roads	6,300
Preston School	improvements	5,737
Department of Agriculture	border stations	18,600
Narcotic Hospital	service connections	3,708
Stockton Hospital	remodel laundry	5,400
School for Blind	improvements	5,400
San Diego College	sprinklers	2,700



# List of New Work Projects Released

Continued from preceding page

<i>Institution</i>	<i>Project</i>	<i>Amount</i>	<i>Institution</i>	<i>Project</i>	<i>Amount</i>
New State Hospital in southern California, roads and walks		10,000	Pacific Colony, Ward Building No. 3		55,000
New State Hospital in southern California, employees' quarters		100,000	Narcotic Hospital, physician's cottage		10,000
New State Hospital in southern California, employees' kitchen and dining room		100,000	Agnews Hospital, physician's cottage		10,000
New State Hospital in southern California, Administration Building		50,000	Whittier State School, employees' cottage		8,500
New State Hospital in southern California, farm group		30,000	Department of Finance, addition to printing plant		81,000
New State Hospital in southern California, laundry		50,000	Pacific Colony, Ward Building No. 15		50,000
Narcotic Hospital, superintendent's residence		16,000	Agnews Hospital, pathological laboratory		80,000
Preston School, farm cottage		4,000	Sonoma State Home, physician's cottage		10,000
Preston School, dairy unit		60,000	School for Blind, addition to girls' house		2,000
Humboldt College, training school		170,000	Norwalk Hospital, ward building at farm		75,000
Chico College, library and classrooms		117,000	California Institution for Women, dairy		5,000
San Quentin Prison, cell block		300,000	Stockton Hospital, kitchen, bakery, cold storage		118,000
San Quentin Prison, solitary confinement		25,000	San Jose College, Science Building		202,000
School for Deaf, primary school and dining room		227,000	Pacific Colony, addition to dining room		35,000
Whittier State School, barn, garages and warehouse		12,000	Pacific Colony, patients' farm cottage		35,000
San Diego College, gymnasium		205,000	San Quentin Prison, prison wall		50,000
San Quentin Prison, Industrial Building		50,000	San Quentin Prison, jute mill		15,000
Fresno College, library		115,000	Polsom Prison, kitchen, commissary and cold storage		100,000
Veterans' Home, hospital		500,000	New State Hospital in southern California, first unit for patients		350,000
National Guard, Pasadena Armory		50,000	Veterans' Home, relocating Company "C" Building		2,550
Sonoma State Home, cottage for boys		75,000	Agnews Hospital, water system		10,000
California Institution for Women, Detention Building		106,000	National Guard, additions at training camp		75,738
Santa Barbara College, Science Building		120,000	Polsom Prison, warehouse		5,000
			Napa Hospital, remodeling		81,000
			Napa Hospital, improvements		25,000
			<b>Total</b>		<b>\$4,858,273</b>



**DIGGING IN**—The boys on this Newcastle tunnel job are out for lunch. The scene is that of the east portal of the project. The tunnel will run under the main section of the town. Three drifts are being developed which later will be consolidated into the auto subway.

## *Motorists' Fees Remedy Road Like This*



**ROUGHING IT**—in Bear Valley. Here's your typical "Ozaik, Missouri," road on the route from Emigrant Gap to Nevada City. This section has not yet been reached by construction, but the road—a reminder of the early auto days—is still used.

**T**HE Division of Motor Vehicles has accounted for its stewardship of funds collected from the motorists of the State during the first half of 1931, by apportioning the huge sum of \$6,176,513.91 to the counties of the State and to the Division of Highways for road maintenance purposes.

One half of this amount, or \$3,088,256.96, goes to the Division of Highways and will be expended by the State's road building organization. The other half is apportioned among the fifty-eight counties according to automobile registrations.

The amount apportioned is substantially greater than last year despite an augmented program of highway patrol and protection financed from license fees. The apportionment practically enables the motorist to get his money back in the form of good roads.

This total of registrations does not include cars exempt from payment of fees such as

those owned by public corporations and is a gain of 38,153 vehicles over the same period of 1930.

The apportionment is based on fee-paid registrations for the period totaling 2,006,165 for the six months period.

The registrations for the period are divided as follows: Passenger cars, 1,855,236; solid trucks, 10,514; pneumatic trucks, 85,675; motorcycles, 7,949; solid trailers, 7,737; pneumatic trailers, 39,054.

Los Angeles County with more than one-third of all the registrations will receive the largest share or \$1,265,276.11. San Francisco County will receive \$229,414.30, the second largest share. Alameda County will receive \$218,795.63.

Here's an interesting fact: Sixteen per cent of the motor vehicles made in the United States in 1930 were exported.

## *Stately Monarchs of Forest Preserved*



**LONG LIVE THE KING**—This superb stand of Redwoods, on the South Fork of the Eel River, with 10,000 acres of surrounding forest, is declared by experts to be a perfect example of redwood growth, which, once destroyed, never could be reproduced. The area has been purchased and will become a part of the State Park system. John D. Rockefeller, Jr., contributed \$1,000,000 toward the purchase.

The renowned Bull Creek and Dyerville forests, acclaimed by world travelers the supreme development of California's giant redwoods, and considered of the same national importance as Yosemite, Grand Canyon and other unique national wonders, are assured of preservation as a part of California's State Park system.

This is the announcement of the California State Park Commission, which has reported through the Director of Natural Resources to Governor James Rolph, Jr., that negotiations with the Pacific Lumber Company, owner of these redwood groves, have reached a successful conclusion, and that 10,000 acres, including the watersheds of Bull Creek, Decker Creek and Cabin Creek, as well as the North and South Dyerville Flats, will be acquired.

The acquisition of these redwoods culminates a campaign of over ten years conducted by the Save-the-Redwoods League, and begun by its founders, Dr. John C. Merriam of the Carnegie Institution of Washington, Madison Grant of New York, and Dr. Henry Fairfield Osborn of the American Museum of Natural History.

Under the terms of the State Park Bond Act, passed by the Legislature in 1927, and ratified by the people of the State, half of the total cost of the project is to be borne by the State and half by the Save-the-Redwoods League. The saving of these redwoods was prominently featured in the campaign for the State Park bonds.

The Save-the-Redwoods League has announced that it has secured sufficient contributions and pledges to match State Park bond funds for the acquisition of these lands. Many public-spirited individuals and organizations throughout the United States have contributed.

John D. Rockefeller, Jr., by a gift of \$1,000,000 and a pledge of a second million to match private gifts as received, made possible the success of the project.

Organizations such as The Garden Club of America, the California Federation of Women's Clubs and the Native Daughters of the Golden West contributed substantial funds.

## When Bowling Along Highways, He Gives Cheer for Builders

By J. A. GREGORY, District VIII Right of Way Agent

**T**ODAY we seem to be at the beginning of a new era in highway building and progress. The men who are responsible for construction of the highways of today are entitled to a great deal of commendation. We get in our car and start out for the beach, mountains or desert, and as far as roadbed is concerned we ride with ease.

Little thought is given to the origination of such highways and the vast amount of field work and office work necessary before even construction work begins. As we ride over mountain roads, where the country is thick with brush and forests, little thought is given to the surveyor and locator who battled and cut his way through such places to make the location. All such surveys and locations after being made in the field are then brought in to the offices of the Division of Highways, where prints of routes, together with maps of elevations, cuts and fills, etc., are made which show exactly where that certain route is located. All such plans after completion are then forwarded to the central office, Sacramento, for approval.

After plans have been returned with an O. K. from Sacramento, in due time that certain project is advertised for bids, which are opened in the offices of the Department of Public Works.

These are a few of the high lights preparatory to the construction of the wonderful highways we have throughout the State today.

To some it would seem extravagant completely to change a dedicated roadbed to an elevated position practically paralleling the same route. This is where the maintenance cost of highways figures in. A yearly check on repairs, grading and cleaning off storm refuse from highways and the great inconvenience to motorists, commercial and others, are checked against the cost of new construction, which through the elevated grade and storm drains, practically eliminates flood damage.

Too much can not be said in commendation for the Governor who approves road construction budgets, the Legislators, who also have their part, and the Director of the Department of Public Works, who sees them through to a final conclusion, and last, but not least, the gas tax that makes it all possible.

## 17 Stolen Machines Recovered by Patrol; 21 Officers Cited

**S**EVENTEEN stolen autos were recovered and seventeen persons arrested as automobile thieves during the month of June, due to the efforts of the Highway Patrol.

In addition, several lives were saved by efforts of patrolmen.

The facts are brought out in a list of citations given out by Chief E. Raymond Cato, who names twenty-one members of the organization for good work done during the past month.

### TEN GET THIEVES

Ten men were commended for their work in nabbing the auto thieves. They are Tony Rose, Joseph Lewis, C. R. Avellar and A. Larsen of Alameda County; Captain S. M. Flynn and C. A. Lunnen of Ventura County, L. N. Harvey of San Diego County, R. H. Trembath and R. Cockerton of Contra Costa County and J. C. Shanks of Sonoma County.

Two officers, J. N. Nobel and R. J. Parr of Ventura County, received commendation for their rescue of two fishermen caught by the tide.

### SAVES A LIFE

Two others, N. Vadnais and C. K. Gill of Alameda County, were cited for rendering assistance to a man and woman hurt in a plane crash.

Inspector M. F. Brown, Eureka, took pneumonia serum to an outlying point and saved a patient's life, thereby earning notice. F. Perry was commended for assistance in checking a fire in Sacramento County.

Captain M. Carter and John Shaffer of Tehama earned citations for first aid given a woman whose husband had been killed in an automobile accident.

### HERE'S BRAVE ACT

W. Fouyer of Nevada County earned a citation for the capture of a bandit at night who had drawn a gun. Fouyer threw his spotlight in the man's eyes and captured him without a struggle.

L. Trenner of Monterey County was commended for assisting the police of Pacific Grove in giving first aid to persons involved in an automobile wreck.

L. Sample, a border checker of San Bernardino County, was commended for assistance given the authorities of Nevada in capturing two murder suspects.

## Work is Progressing On Alternate Ridge Route Construction

S. V. Cortelyou, District Engineer, reports rapid progress on highway construction work in District 7. Extracts from his report show:

**IN LOS ANGELES COUNTY**—Work is rapidly nearing completion on the first grading contract of the Alternate Ridge Route. This portion is between Castaic and Canton Creek and is being constructed by Doering von der Hellen & Pierson, contractors.

The second grading contract on this route, from Canton Creek to Piru Gorge, was awarded to the Will F. Peck Company April 23, 1931. Work is now in progress on this section and the grading of the work will be completed by approximately September 1, 1932.

Bids will be opened for the third and final grading contract on this project July 15, 1931, so that grading for the entire length of the Alternate Ridge Route will be under contract shortly after that date.

**IN ORANGE COUNTY**—Paving work was recently completed on the Galivan line change, a distance of 0.93 mile. This new alignment crosses the Santa Fe Railroad tracks on an overhead crossing which was constructed a few years ago. A con-



**THEN AND NOW**—Surely a real study in contrasts. The "Before" photo is a good ad for So & So's tractor—at least one would need it to traverse that road. But the same scene depicted below, typical of highway improvement between Mojave and Bishop, is an old story to Californians—a long, level stretch of modern road.

tract has recently been awarded for widening the grading and pavement for a distance of approximately  $5\frac{1}{2}$  miles along the Serra Bluffs from San Mateo Flat to Serra.

**IN SAN DIEGO COUNTY**—A line change at

Bostonia, which greatly improves the alignment on this section, is now under construction. Portland cement concrete pavement 20 feet wide has been completed and this portion of the highway will be opened to traffic in a short time.

# Vital Statistics on Dam Construction

**Applications for approval of dams built prior to August 14, 1929, filed with the State Department of Public Works, Division of Water Resources, during the month of June, 1931.**

**VENTURA COUNTY**—Los Posas Wash No. 766. J. N. Thille and Peter Connelly, Santa Paula, owner; earth, 46 feet above streambed with a storage capacity of 50 acre-feet, situated on Los Posas Wash tributary to Revelon Slough, for silt storage purposes.

**RIVERSIDE COUNTY**—San Jacinto Dam No. 812. J. C. Agee, Artesia, owner; earth, 22 feet above streambed with a storage capacity of 60 acre-feet, located in Sec. 18, T. 3 S., R. 6 W., S. B. B. and M.

**MODOC COUNTY**—Dry Valley Dam No. 121-5. Bixby-Huffman Cattle Co., Alturas, owner; earth, 3 feet above streambed with a storage capacity of 100 acre-feet, situated on Dry Valley tributary to Willow Creek in Sec. 12, T. 46 N., R. 10 E., M. D. B. and M., for storage purposes, for irrigation and stock use.

**Applications for approval of plans and specifications for construction or enlargement of dams filed with the State Department of Public Works, Division of Water Resources, during the month of June, 1931.**

**SAN MATEO COUNTY**—Whitehouse Creek Dam No. 667. Humphrey Estate, Inc., Pescadero, owner; arch dam, 21 feet above streambed with a storage capacity of 9 acre-feet, situated on Whitehouse Creek in Sec. 8, T. 9 S., R. 4 W., M. D. B. and M., for storage and diversion purposes, for irrigation use. Estimated cost \$4,750, fees paid \$27.50.

**LOS ANGELES COUNTY**—Verdugo Wash Dam No. 32-4. Los Angeles County Flood Control District, Los Angeles, owner; earth, 32 feet above streambed with a storage capacity of 103 acre-feet, situated on Verdugo Creek tributary to Los Angeles River, located in Rancho San Rafael. Estimated cost \$32,182, fees paid \$331.82.

**Applications for approval of plans and specifications for repair or alteration of dams filed with the State Department of Public Works, Division of Water Resources, during the month of June, 1931.**

**SOLANO COUNTY**—Swanzy Lake Dam No. 443. Calif. and Hawaii Sugar Refining Corp., Crockett, owner; earth dam, located in Vallejo Township.

**MODOC COUNTY**—Spaulding Dam No. 154. R. D. Craig, Malin, Oregon, owner; earth dam, situated on unnamed drainage tributary to Tule Lake in Sec. 2, T. 42 N., R. 7 E., M. D. B. and M.

**VENTURA COUNTY**—Hall Canyon, Lower Dam No. 764-2. Associated Oil Company, San Francisco, owner; earth dam, situated on Hall Canyon Creek tributary to Pacific Ocean in Rancho Ex Mission San Buenaventura.

**RIVERSIDE COUNTY**—San Jacinto Dam No. 812. J. C. Agee, Artesia, owner; earth, located in Sec. 19, T. 3 S., R. 6 W., S. B. B. and M.

**RIVERSIDE COUNTY**—Lake Norconian Dam, West, No. 820. Rex B. Clark, Norco, owner; earth, located in Sec. 12, T. 3 S., R. 7 W., S. B. B. and M.

**ORANGE COUNTY**—South Lambert Dam No. 793. The Irvine Co., Tustin, owner; earth, located in Lot 368 of Irvin subdivision.

**MONO COUNTY**—Walker Dam No. 533. Archibald Farrington, Mono Lake, owner; earth and rock, situated on Walker Creek tributary to Rush Creek in Sec. 7, T. 1 S., R. 26 E., M. D. B. and M.

**Plans and specifications for the construction or enlargement of dams approved by the State Department of Public Works, Division of Water Resources, during the month of June, 1931.**

**LOS ANGELES COUNTY**—Pine Canyon Dam No. 19. City of Pasadena, Pasadena, owner; gravity dam, 217 feet above streambed with a storage capacity of 40,000 acre-feet, situated on San Gabriel River tributary to Pacific Ocean in Sec. 13, T. 1 N., R. 10 W., S. B. B. and M., for storage purposes for municipal and domestic use.

**NEVADA COUNTY**—Lower Lindsay Lake Dam No.

97-36. Pacific Gas and Electric Company, San Francisco, owner; earth and rock, 11½ feet above streambed with a storage capacity of 290 acre-feet, situated on Texas Creek tributary to South Yuba River in Sec. 20, T. 18 N., R. 12 E., M. D. B. and M., for storage purposes for power use.

**ALAMEDA COUNTY**—(Upper Alameda Creek Diversion Dam No. 10-8. City and County of San Francisco, San Francisco, owner; slab and buttress dam, 3½ feet above streambed with a storage capacity of 15 acre-feet, situated on Upper Alameda Creek tributary to Calaveras Creek in Sec. 17, T. 5 S., R. 2 E., M. D. B. and M., for diversion purposes, for municipal and domestic use.

**Plans for the repair or alteration of dams approved by the State Department of Public Works, Division of Water Resources, during the month of June, 1931.**

**LOS ANGELES COUNTY**—Big Santa Anita Dam No. 32-2. Los Angeles County Flood Control District, Los Angeles, owner; arch dam, situated on Big Santa Anita Creek tributary to San Gabriel River in Sec. 10, T. 1 N., R. 1 W., S. B. B. and M.

**MONO COUNTY**—Sardine Lake Dam No. 533-2. Archibald Farrington, Mono Lake, owner; rock, 10 feet above streambed with a storage capacity of 30 acre-feet, situated on Walker Creek tributary to Mono Lake in Sec. 15, T. 1 S., R. 25 E., M. D. B. and M.

**VENTURA COUNTY**—Lower Hall Canyon Dam No. 764-2. Associated Oil Company, San Francisco, owner; earth dam, situated on Hall Canyon Creek tributary to Pacific Ocean, located in Rancho Ex Mission San Buenaventura.

**BUTTE COUNTY**—Round Valley Dam No. 97-9. Pacific Gas and Electric Company, San Francisco, owner; earth dam, situated on North Fork Feather River tributary to Feather River in Sec. 36, T. 26 N., R. 5 E., M. D. B. and M.

**LOS ANGELES COUNTY**—Devils Gate Dam No. 32-3. Los Angeles County Flood Control District, Los Angeles, owner; gravity dam, situated on Arroyo Seco, tributary to Los Angeles River in Rancho San Pasqual.

**RIVERSIDE COUNTY**—San Jacinto Dam No. 812. J. C. Agee, Artesia, owner; earth dam, located in Sec. 19, T. 3 S., R. 6 W., S. B. B. and M.

**RIVERSIDE COUNTY**—Lake Norconian, West Dam No. 820-A. Rex B. Clark, Norco, owner; earth dam, located in Sec. 12, T. 3 S., R. 7 W., S. B. B. and M.

## WATER APPLICATIONS AND PERMITS

**LOS ANGELES COUNTY**—Application 6970. Harry M. Miller, Little Rock, Calif., for 2 miners inches or 0.05 c.f.s. from an unnamed spring tributary to Mojave Desert. To be diverted in Sec. 16, T. 4 N., R. 10 W., S. B. B. and M., for irrigation and domestic purposes (2 acres).

**ALPINE COUNTY**—Application 6971. State of California, Department of Public Works, Division of Highways, District X, by C. H. Purcell, State Highway Engineer, Sacramento, Calif., for 0.016 c.f.s. from an unnamed spring tributary to Middle Fork of Stanislaus River. To be diverted in Sec. 35, T. 6 N., R. 20 E., M. D. B. and M., for domestic purposes. Estimated cost \$1,000.

**NEVADA COUNTY**—Application 6972. C. A. Casey, Mill Valley, Calif., for one miners inch from a spring tributary to Middle Fork of Yuba River. To be diverted in Sec. 5, T. 17 N., R. 8 E., M. D. B. and M., for mining and domestic purposes.

**KERN COUNTY**—Application 6973. Clinton E. Albertson, Box 15, Inyokern, Calif., for 500 gallons per day from a well. To be diverted in Sec. 26, T. 27 S., R. 40 E., M. D. B. and M., for mining and domestic purposes. Estimated cost \$200.

**SIERRA COUNTY**—Application 6974. Minnie F. Dutton, 1653 N. Ardmore, Los Angeles, Calif., for 25 c.f.s. from South Fork of North Fork of Yuba River tributary to North Fork of Yuba River. To be diverted

# June Water Applications and Permits

in Sec. 30, T. 20 N., R. 12 E., M. D. B. and M., for power purposes.

**TUOLUMNE COUNTY**—Application 6975. State of California, Department of Public Works, Division of Highways, c/o C. H. Purcell, State Highway Engineer, Public Works Bldg., Sacramento, Calif., for 0.016 c.f.s. from an unnamed spring tributary to South Fork of Tuolumne River. To be diverted in Sec. 35, T. 1 S., R. 19 E., M. D. B. and M., for domestic purposes. Estimated cost \$1,000.

**SAN BERNARDINO COUNTY**—Application 6976. Wayne Courtney, 1318 W. 94th street, Los Angeles, Calif., for 3 c.f.s. from Antelope Canyon tributary to Mojave Desert. To be diverted in Sec. 29, T. 2 N., R. 4 E., S. B. B. and M., for irrigation and domestic purposes.

**KERN COUNTY**—Application 6977. W. F. Elwin and Noah Adair, c/o C. L. Adair, 308 Date street, Rialto, Calif., for 3 c.f.s. from wells tributary to Goler Creek, tributary to Mojave Desert. To be diverted in Secs. 34 and 35, T. 28 S., R. 39 E., M. D. B. and M., for mining purposes. Estimated cost \$3,000.

**TRINITY COUNTY**—Application 6978. Edward L. Schreckengost, Douglas City, Trinity County, Calif., for 2 c.f.s. from Browns Creek tributary to Trinity River. To be diverted in Sec. 19, T. 31 N., R. 19 W., M. D. B. and M., for mining purposes. Estimated cost \$600.

**HUMBOLDT COUNTY**—Application 6979. Ulysses S. Grant Myers, Weott, Calif., for 0.025 c.f.s. from Pete Creek tributary to South Fork of Eel River. To be diverted in Sec. 30, T. 2 S., R. 3 E., H. E. and M., for domestic purposes. Estimated cost \$2,750.

**TULARE COUNTY**—Application 6980. Frank O. Sheldon, P. O. Box 68, Porterville, Calif., for 200 gallons per day from a spring tributary to South Fork of Middle Fork of Tule River. To be diverted in Sec. 35, T. 20 S., R. 31 E., M. D. B. and M., for domestic purposes. Estimated cost \$35.

**TULARE COUNTY**—Application 6981. N. N. Redford, A. M. Griggs, R. Y. Roper, c/o N. N. Redford, Exeter, Calif., for 600 gallons per day from Monarch Creek tributary to East Fork of Kaweah River. To be diverted in Sec. 15, T. 17 S., R. 31 E., M. D. B. and M., for domestic purposes.

**TRINITY COUNTY**—Application 6982. Basil Froloff, Weaverville, Calif., for 12.5 c.f.s. from Rush Creek tributary to Trinity River. To be diverted in Sec. 21, T. 34 N., R. 9 W., M. D. B. and M., for mining and domestic purposes. Estimated cost \$50.

**PLACER COUNTY**—Application 6983. Brockway Land & Water Co., a Corporation, c/o Jessie H. Miller, Atty., 712 DeYoung Bldg., San Francisco, Calif., for 1.0 c.f.s. from Griff Creek tributary to Lake Tahoe. To be diverted in Sec. 18, T. 16 N., R. 18 E., M. D. B. and M., for irrigation and domestic purposes (841.88 acres).

**MERCED COUNTY**—Application 6984. Stevinson Water District, a Corporation, c/o Hatfield, Wood & Kilkenny, Atty., 315 Chancery Bldg., San Francisco, Calif., for 175 c.f.s. from McCoy Spillway, Arena Spillway, Livingston Drain, Bear Creek, Owens Creek, Duck Creek, Deadman Creek, tributary to San Joaquin River. To be diverted in Secs. 20, 21, 22, 27 and 33, T. 7 S., R. 11 E., M. D. B. and M., Sec. 12, T. 8 S., R. 11 E., M. D. B. and M., and Secs. 19 and 30, T. 8 S., R. 12 E., M. D. B. and M., for irrigation purposes (20,698.33 acres). Estimated cost \$50,000.

**TRINITY COUNTY**—Application 6985. Majestic Mines Co., Weaverville, Calif., for 100 c.f.s. from Rush Creek tributary to Trinity River. To be diverted in Sec. 5, T. 34 N., R. 9 W., M. D. B. and M., for mining and domestic purposes. Estimated cost \$50,000.

**DEL NORTE COUNTY**—Application 6986. D. R. Morrison and W. J. Cooley, c/o Daniel M. Hunsaker, Atty., Rowan Bldg., Los Angeles, Calif., for 50 c.f.s. from Elk Creek tributary to Illinois River. To be diverted in Sec. 12, T. 19 N., R. 4 E., H. B. B. and M., for mining purposes. Estimated cost \$200.

**SISKIYOU COUNTY**—Application 6987. T. A. Sweeney, Ainsworth Bldg., Portland, Ore., for 2 c.f.s. 30 acre-feet per annum from Hungary Creek and unnamed springs tributary to Klamath River. To be diverted in Sec. 36, T. 48 N., R. 8 W., M. D. B. and M., for mining and domestic purposes.

**EL DORADO COUNTY**—Application 6988. Harold J. Smith, 602-4 Medico Dental Bldg., Sacramento, Calif., for 200 gallons per day from Rock Creek tributary to South Fork of American River. To be diverted in Sec. 18, T. 11 N., R. 17 E., M. D. B. and M., for domestic purposes. Estimated cost \$100.

**Permits to appropriate water issued by the Department of Public Works, Division of Water Resources, during the month of June, 1931.**

**SIERRA COUNTY**—Permit 3721, Application 6923. Geo. F. Taylor, Downieville, Calif., June 2, 1931, for 50 c.f.s. from Cherokee Creek in Sec. 6, T. 19 N., R. 9 E., M. D. M., for mining purposes.

**SAN BERNARDINO COUNTY**—Permit 3722, Application 6717. Geneva C. Baxter, Victorville, Calif., June 2, 1931, for 0.4 c.f.s. from Silver Creek Canyon in Sec. 17, T. 3 N., R. 1 W., S. B. M., for irrigation purposes on 180 acres. Estimated cost \$100.

**MARIPOSA COUNTY**—Permit 3723, Application 6836—Mrs. Estelle I. Fraser, Coulterville, Calif., June 2, 1931, for 33 c.f.s. from North Fork of Merced River in Sec. 7, T. 3 S., R. 18 E., M. D. M., for power purposes.

**LOS ANGELES COUNTY**—Permit 3724, Application 6511. Ernest E. Pettinger and Ralph Wagner, Saugus, Calif., June 6, 1931, for 0.05 c.f.s. from Drippy Spring in Sec. 25, T. 5 N., R. 16 W., S. B. M., for irrigation and domestic purposes on 4 acres. Estimated cost \$250.

**MONTEREY COUNTY**—Permit 3727, Application 6066. Florence Hogue, Los Angeles, Calif., June 9, 1931, for 3 c.f.s. from Bixby Creek in Section 15, T. 18 S., R. 1 E., M. D. M., for power purposes. Estimated cost \$3,000.

**MONTEREY COUNTY**—Permit 3728, Application 6067. Florence Hogue, Los Angeles, Calif., June 9, 1931, for 1 c.f.s. from (2) Bixby Creek, (3) Cross Canyon, (4) Daisy Gulch, (5) Bear Trap Canyon in Secs. 15 and 16, T. 18 S., R. 1 E., M. D. M., for domestic purposes. Estimated cost \$22,000.

**MONTEREY COUNTY**—Permit 3729, Application 6122. Florence Hogue, Los Angeles, Calif., June 9, 1931, for 1 c.f.s. from Sierra Creek in Sec. 21, T. 18 S., R. 1 E., M. D. M., for domestic purposes. Estimated cost \$8,000.

**LAKE COUNTY**—Permit 3730, Application 6927. P. V. Pedroncini, Ukiah, Calif., June 10, 1931, for 0.1 c.f.s. from two unnamed springs in Sec. 11, T. 15 N., R. 11 W., M. D. M., for irrigation and domestic purposes on 7 acres. Estimated cost \$3,000.

**HUMBOLDT COUNTY**—Permit 3731, Application 6911. Mrs. Sarah J. Carpenter, Salyer, Calif., June 19, 1931, for 1.2 c.f.s. from Ammon Creek, in Sec. 12, T. 5 N., R. 5 E., H. B. M., for irrigation purposes on 60 acres. Estimated cost \$800.

**BUTTE COUNTY**—Permit 3732, Application 6660. A. H. Dakin, Magalia, Calif., June 19, 1931, for 3 c.f.s. from Empire Creek in Sec. 20, T. 23 N., R. 4 E., M. D. M., for mining purposes. Estimated cost \$1,500.

**MONO COUNTY**—Permit 3733, Application 5953. Harry A. Culver, June Lake, Calif., June 20, 1931, for 0.025 c.f.s. from an unnamed spring in Sec. 14, T. 2 S., R. 26 E., M. D. B., for domestic purposes. Estimated cost \$100.

**PLUMAS COUNTY**—Permit 3734, Application 6874. Oscar T. Schumacher, Quincy, Calif., June 20, 1931, 1 c.f.s. from an unnamed stream in Sec. 33, T. 23 N., R. 10 E., M. D. M., for mining and domestic purposes.

**EL DORADO COUNTY**—Permit 3735, Application 6842. J. W. Moore and W. C. Nemiller, Stockton, Calif., June 23, 1931, for 1800 gallons per day from Forni Creek in Sec. 24, T. 11 N., R. 16 E., M. D. M., for domestic purposes. Estimated cost \$350.

**PLUMAS COUNTY**—Permit 3736, Application 6872. Max Paul Boehme, San Francisco, Calif., June 3, 1931, for 0.1 c.f.s. from Mill Creek in Sec. 27, T. 25 N., R. 8 E., M. D. M., for irrigation and domestic purposes on six acres. Estimated cost \$150.

**SIERRA COUNTY**—Permit 3737, Application 6844. Kate Hardy Mining Co., Downieville, Calif., June 25, 1931, for 0.205 c.f.s. from an unnamed ravine in Sec. 20, T. 19 N., R. 10 E., M. D. M., for mining purposes. Estimated cost \$300.

## Here's Hot Article on a Cold Subject

The following article on refrigeration may not be read with avidity by this journal's subscribers in Alaska, but it is particularly timely in Sacramento, where it is being edited on one of the Sacramento Valley's "unusual" days. It is an intensely interesting paper on how to keep cool and how ice and other freezy things are made.

By C. A. HENDERLONG, Assistant Engineer

**A**LTHOUGH refrigeration as we now know it is a comparatively modern process, it is a known fact that the ancients knew some of its secrets. Thousands of years before the dawn of the Christian era, the Egyptians produced artificial refrigeration by means of evaporation for the cooling of wines and water. This was done by placing the liquids to be cooled in porous vessels, the evaporation of moisture on the outside cooling the liquid inside. This principle is still employed, for instance, in the desert water bag constructed of heavy canvas. Refrigeration was also obtained by the ancients by means of packed snow brought down from nearby mountains through means of fast runners.

### DATES BACK TO 1873

The successful production of refrigeration by the compression system dates back to the invention of the ammonia compression machine in 1873. Subsequent to that time, other experiments produced different forms of mechanical refrigeration; however, none was entirely successful. Mechanical refrigeration was at first applied to the production of artificial ice. It was soon found, however, that ice was not suitable for the preservation of foods at low temperatures and the system of placing expansion or cooling coils directly in the cold storage boxes was developed.

Mechanical refrigeration has now become an absolute necessity in our State institutions and also in hotels, cold storage plants, etc., where it is necessary to keep supplies of perishable food on hand. When it is considered that temperature above 50° F. results in the rapid spoilage of most foods through bacteria growth, the absolute need of refrigeration is apparent. Poultry, for instance, should be kept at about 29° F. if held for any length of time; meat at 32° F.; likewise milk, eggs, etc., around 34° F., and other products at correspondingly low temperatures. Products in storage for long periods are held at somewhat lower temperatures than above.

### USES BY STATE

With the development of mechanical refrigeration, its use has been extended to other fields such as the cooling and air conditioning of factories, theatres, etc., various mechanical and chemical processes and the production of dry ice or frozen carbon dioxide (CO<sub>2</sub>), etc., besides many other widely different applications.

It is the purpose of this article to describe in a general way the type of refrigerating equipment in use at various State institutions. For the larger State institutions where a number of cold storage rooms must be cooled, the ammonia compression system with brine circulation to the cold storage room coils, is used. The production of cold by means of mechanical refrigeration is a comparatively simple process.

Briefly stated, this is accomplished by the compression of the ammonia gas to about 165-pound gauge, which raises its temperature, and the passing of this gas through a cooler which consists essentially of a series of tubes surrounded by cooling water of about 65° F. The cooling of the ammonia gas under pressure by means of cold water extracts the heat of compression and liquefies it and it is passed from the cooler or condenser to the ammonia receiver.

### QUITE A PROCESS

From this receiver it is allowed to enter the expansion or cooling coils at a pressure of about 15 pounds gauge, these coils being submerged in the brine tank. The drop in pressure from 165 pounds to 15 pounds greatly lowers the temperature of the ammonia, resulting in about 0° F. inside of the ammonia coils. From the expansion or ammonia coils the gas is returned to the suction side of the compressor through piping, where it is again compressed and the same cycle repeated.

Pure anhydrous liquid ammonia is the refrigerant most universally used because it liquefies at a comparatively low temperature and its latent heat value is relatively high. It boils at 28½° F. below zero at atmospheric pressure and at sea level. Contrast this with water which boils at 212° F. under the same conditions. The brine tank consists of a steel tank containing a solution of water and calcium chloride (common salt) of sufficient strength so that it will not freeze. The brine is maintained at a temperature of about 14° F. by means of the ammonia coils submerged. Small centrifugal pumps circulate the cold brine through piping to the various coils in the storage rooms.

### SIXTEEN COLD ROOMS

At the Patton State Hospital in the recently completed kitchen and bakery building, there is a total of sixteen cold storage rooms ranging in size from the smallest room, approximately 10 feet by 6 feet by 10 feet high, to the largest, 15 feet by 30 feet by 10 feet high. All of these rooms have the floors, walls and ceilings insulated with sheet cork board 4 inches thick, applied in two layers 2 inches thick, with joints staggered. Sheet cork is the insulation most generally preferred because it is impervious to moisture and has a very low thermal conductivity. The brine or cooling coils are placed overhead in bunkers near the ceiling, each room except the very small ones having two bunkers, so as to provide proper air circulation and also permit of defrosting one unit, the other remaining in operation. There are two ammonia compressors installed, one of ten tons capacity driven by a 20-h.p. electric motor and the other of fifteen tons capacity driven by a 30-h.p. electric motor. The operation of





**NOT SO HOT**—because it's a chilling room, a new one at Patton State Hospital. It had been hoped to cool a hot article by printing a picture showing long, white icicles hanging from pipes, but the world moves on and it is found that the above is the very latest. In other words, there are no more naked chilling pipes in modern architecture. The arrow shows the cooling chambers, enclosed in casings. More sanitary.

these compressors is entirely automatic; that is, when a certain amount of refrigeration has been supplied they automatically shut down and likewise start again when additional refrigeration is required. The correct temperatures in the cold storage rooms are automatically maintained by means of a thermostat in each storage room connected to a brine valve located in the connection to the coils which controls the supply of cold brine.

Electric refrigeration, as it is called, is used extensively in State institutions, usually in the smaller kitchen buildings, doctors' residences, ward buildings, etc. They vary in size from the small household box to larger installations involving several compressors of the remote installation type. These machines virtually all use sulphur dioxide ( $\text{SO}_2$ ) as the refrigerant, because it may be used at very low pressures, considerably below ammonia, thus eliminating the possibility of leakage and other troubles.

With one or two exceptions, all operate on the compression system, the principle of operation being identical to the large ammonia machines with the exception that small units, such as the regular household box, use air circulated through the condenser by a fan to liquefy the compressed gas. Electric refrigeration has been developed rapidly in the last few years and has been installed in several sizeable installations where formerly ammonia machines would be required.

#### THREE TONS PER DAY

Water ice, or ice made from frozen water, is manufactured at all of the State hospitals, also at Folsom and San Quentin State prisons, the Veterans' Home, Preston School of Industry and the California School for the Deaf.

Some of the institutions are equipped to manufacture what is known as commercially clear ice. Ordinarily in freezing ice, the entrapped air results in cloudy or opaque ice. Clear ice is made by the use of certain equipment which, briefly, consists of a small rotary air compressor, a vacuum pump and a system of small piping conveying the compressed air to the water which is being frozen in each can. The small air bubbles forming on the surface of the ice attach themselves to the larger bubbles introduced by the blower and piping and are liberated from the top of the freezing cake, thus forming clear or transparent ice.

#### ARE YOU FIFTY-FIFTH?

There is one automobile for every 55 persons in the world. The United States has more than 11 times the average, it is indicated, as there is one vehicle for each 4.5 inhabitants. Outside of the United States the ratio is one automobile for each 216 persons.

California has nearly 100 times this average with an automobile for every 3.5 persons, or more than one to each family in the State.

## How Land Is Secured for New Roads; Diplomatic Envoys in State Employ

By C. C. CARLETON, Chief, Division of Contracts and Rights of Way

**T**HIS is the twentieth year of systematic State highway building in California.

While considerable right of way activity has from the outset been prerequisite to the highway work, yet it has only been for a few years that it has become recognized as of major importance on a parity with the engineering itself.

The cost of right of way now represents about 11 per cent of the total State highway construction disbursements.

In earlier years old county roads with their existing widths were adopted as links in the State highway system and any necessary new rights of way were obtained through the county boards of supervisors or civic organizations interested in promoting projects of particular interest to themselves.

### FORTY EMPLOYEES

But with the advent of the gas tax and consequent greater State highway accomplishments and bolder treatment of highway location and construction, it became imperative that the State itself establish its own right of way organization.

The staff consists at present of about forty employees, six of whom have had legal education, the remainder possessing either a special training in right of way, real estate, or appraising practice, or such other business background as will readily adapt them for successful service in this field.

### MINIMUM WIDTH

The minimum statutory width of right of way for State highway in California is eighty feet.

However, the State Highway Commission has now prescribed a minimum width of one hundred feet for the trunk lines.

It becomes obvious that, as the minimum statutory width of county roads was only forty feet, the present day widening and altering of these old roads to modern State highway standards is creating right of way problems of major proportions, as a large mileage of the State highway has now become closely built up or bordered by expensive improvements.

The policy of the State is to deal with all

owners "fairly and squarely," but it requires the "tact and contact" of forty trained and experienced men to handle the situation, nevertheless.

### SETTLED BEFORE TRIAL

Condemnation proceedings are invoked only after friendly overtures have been unavailing, and even if such proceedings are instituted, a large percentage of them are settled before trial.

The constitution of California was amended in 1918 enabling the State to deposit money security into court when the condemnation proceedings are commenced and to take immediate possession of the desired right of way without awaiting results of a trial.

But despite this summary procedure the right of way agents are admonished to speed up their negotiations to the end that landowners shall have had ample opportunity to settle before being haled into court and as little personal embarrassment as possible occasioned.

The Division of Contracts and Rights of Way is one of the bureaus of the State Department of Public Works.

### HOW THEY WORK

This division is in charge of a chief, who must be an attorney at law, and who coordinates all right of way activities of the department.

The right of way staff consists of two classes; one devoting itself to work largely of a legal nature and the other to visiting those having some interest in the land sought to be obtained and getting their signatures "on the dotted line."

The court work is more directly in charge of the attorney who is usually spoken of as the Attorney for the California Highway Commission and who is aided by three assistants with legal training called "Condemnation Investigators."

The attorney handles all condemnation proceedings and passes upon the sufficiency of all land titles.

The condemnation investigators assist the attorney by acting as his field representatives in settling cases before trial, or in the event

## *Right of Way Agents Must be Versatile to Operate Successfully*

that cases can not be settled, in visiting the localities where the cases are to be tried and preparing for the impending trials by interviewing witnesses and attending to all other necessary preliminary trial work. They must also be qualified to act as attorneys in cases should the attorney be unable personally to handle them due to stress of other duties.

### FLYING SQUADRON

Practically the entire time of this legal flying squadron is engaged in the trial of the many condemnation cases in progress in the fifty-eight counties of the State.

Attached to the office of the Chief of the Division of Contracts and Rights of Way are two aides of legal training who are designated as the general right of way agent and the assistant general right of way agent, respectively.

They are the liaison agents of the Chief of the Right of Way Division in his contacts with the district right of way agents. They are subject to orders to go to any part of the State to deal with the legal or even the solicitation phases of the district right of way activities.

### DISTRICT OFFICES

The State highway work in this State is handled regionally by ten district offices.

The local right of way activities such as actual field negotiations for necessary rights of way are ordinarily conducted by district right of way agents attached to the district offices. The district right of way agent is in turn aided by several assistant right of way agents.

These district right of way agents form the real backbone of the right of way organization, as upon them largely rests the success and the popularity of the State's endeavors to lay its ribbons of roadway over private property with as little private detriment as possible.

### DIPLOMATIC AGENTS

They are the advance agents who, without regard to their own personal comfort or convenience, must constantly be at the wheels of their cars visiting landowners, however far off the beaten path they may find them, smilingly attempting to convince such landowners (some very redoubtable) of their sincerity of

## THANKS ARE EXTENDED TO PROPERTY OWNERS

**A**N EXPRESSION of commendation is due the hundreds of property owners throughout California who are facilitating State highway construction by their donations of necessary rights of way.

Some frankly acknowledge the resultant benefits of the highway betterments to their property, others, at some personal sacrifice, generously contribute the use of their property for the advancement of the community welfare.

The donations have been of two types, those granting required easements without any compensation whatsoever, and those contributing valuable land on the sole condition that the State shall bear the cost of moving existing buildings or pay for any fruit trees affected by the improvement.

purpose and their desire to deal fairly with them.

The "right of way man" has now become recognized in this State as being as essential to an effective State highway organization as the engineer. In fact, a good "right of way man" in the complexities of modern highway construction must be quite a paragon.

### ALL-ROUND ABILITY

He must be informed concerning the law of land titles, have at least a rudimentary knowledge of engineering and the ability to read maps and blue prints, able properly to appraise property values, a keen analyst of human nature and the possessor of an agreeable personality and an unswerving integrity.

In closing, may the writer be pardoned for the facetious observation that, despite the trials and tribulations of the "right of way men," theirs must really be a very absorbing vocation, evidenced by the fact that in California they rarely if ever voluntarily resign to enter other lines of endeavor.

### IT'S A FUNNY HABIT

Some motorists are so anxious to crash into a railway train that they burst through the guard gates to accomplish this end, it is revealed in reports of the American Railway Association. Approximately one-fourth of the grade crossing accidents in the country last year were due to motorists running into trains. There were 1130 passenger automobiles hit trains last year, killing 214 persons.

Engineers and highway superintendents from Pan-American countries are being trained in American road building methods through a scholarship plan supported by the American Road Builders' Association. Two road builders from each of fifteen Pan-American countries will be appointed in 1931 for six months' study of American highway methods and equipment.

## Highway Bids and Awards for June

**ALAMEDA COUNTY**—Erection and completion of maintenance station buildings near Livermore. Dist. IV, N. H. Sjöberg & Son, San Francisco, \$6,489; R. Hodgson & Son, Porterville, \$5,490; Arthur Holyoake, Hayward, \$5,986; C. A. Bruce & Sons, Pleasanton, \$5,654; Wm. Spivock, San Francisco, \$5,328; Oliver S. Almie, San Francisco, \$6,589; The Minton Co., Palo Alto, \$5,499. Contract awarded to Theodor Johanns, San Francisco, \$5,161.

**AMADOR COUNTY**—Between Drytown and Amador City. 2.7 miles 20" bituminous surface treatment to be applied. Dist. X, Rt. 65, Sec. B, A. Teichert & Son, Inc., Sacramento, \$5,821. Contract awarded to E. F. Hilliard, Sacramento, \$5,508.

**CALAVERAS COUNTY**—Between Murphys and Big Trees. About 15.5 miles to be bituminous surface treated. Dist. X, Rt. 24, Sec. E, Heafey-Moore Co., Oakland, \$26,516; Perdras Reed, Tracy, \$20,450; J. R. Reeves, Sacramento, \$21,823; Geo. French, Jr., Stockton, \$20,725; A. Teichert & Son, Inc., Sacramento, \$20,795. Contract awarded to William J. Schmidt, Berkeley, \$17,065.

**COLUSA COUNTY**—Between Williams and Maxwell. About 8.6 miles to be graded and paved with Portland concrete cement. Dist. III, Rt. 7, Secs. B & C, Basch Bros. Construction Co., Torrance, \$259,263; N. M. Bell, Porterville, \$240,941; Fredrickson & Watson Construction Co. and Fredrickson Bros., Oakland, \$259,235; Hanrahan Co., San Francisco, \$235,912; C. W. Wood, Stockton, \$249,544. Contract awarded to Union Paving Company, San Francisco, \$239,247.

**COLUSA COUNTY**—Between 4 miles south of Williams and Williams. About 4.1 miles to be graded and paved with Portland cement concrete. Dist. III, Rt. 7, Sec. B, C. W. Wood, Stockton, \$125,545; Matt J. Bevanda, Stockton, \$138,496; Hanrahan Company, San Francisco, \$135,675; N. M. Bell, Porterville, \$127,946. Contract awarded to Union Paving Company, San Francisco, \$124,806.

**EL DORADO COUNTY**—Between Clarks Corner and Placerville. Placing crushed gravel or stone and treating with cut back asphalt by road mix method. Dist. III, Rt. 11, Sec. C, Tiffany-McReynolds-Tiffany, San Jose, \$12,202. Contract awarded to Force Construction Co., Piedmont, \$9,974.

**FRESNO AND KERN COUNTIES**—Fresno County between west boundary to 2 miles east of Parkfield Junction, 15.4 miles. Kern County between west boundary and 2 miles west of Maricopa to be oiled as a dust palliative. Dist. VI, Rts. 10 and 57, Secs. A and A, B & C, Stewart & Nuss, Fresno, \$2,339; California Crane Service, Los Angeles, \$3,471; Wm. J. Schmidt, Berkeley, \$4,478; Hartman Construction Co., Bakersfield, \$3,577; Kern Construction Co., Bakersfield, \$4,213. Contract awarded to Pacific Tank Lines, Los Angeles, \$3,206.

**HUMBOLDT COUNTY**—Between Big Lagoon and Freshwater Lagoon. About 8.4 miles to be surfaced with bituminous treated gravel. Dist. I, Rt. 1, Sec. J, Mercer-Fraser Co., Eureka, \$66,184; Heafey-Moore Co., Oakland, \$73,320; W. H. Hauser, Oakland, \$69,920. Contract awarded to Hemstreet & Bell, Marysville, \$64,908.

**IMPERIAL COUNTY**—Between East High Line Canal and Sand Hills. About 21 miles widening extension pavement with asphalt concrete. Dist. VIII, Rt. 27, Sec. A, Steele Finley, Santa Ana, \$110,877; R. E. Hazard Construction Co., San Diego, \$111,613; Southwest Paving Co., Los Angeles, \$113,072; V. R. Dennis Construction Co., San Diego, \$122,296. Contract awarded to Griffith Co., Los Angeles, \$95,590.

**MARIPOSA COUNTY**—Between Lorenos on Briceburg grade and El Portal. 12.5 miles to be covered with a bituminous surface treatment of asphaltic road oil and screenings. Dist. VI, Rt. 18, Sec. E, F & G, Wm. J. Schmidt, Berkeley, \$17,225. Contract awarded to A. Teichert & Son, Inc., Sacramento, \$14,646.

**MENDOCINO COUNTY**—Bridge across Russian River 2 miles south of Ukiah. Two 125' timber truss spans and 8 19' timber trestle spans, 170' roadway approach to be graded and surfaced with bituminous treated crushed gravel or stone surfacing. Dist. IV, Rt. 70, Sec. A, C. Dudley DeVilbiss, San Francisco, \$31,886; W. W. Kitchen, San Francisco, \$33,570; M.

B. McGowan, \$33,596; Smith Brothers Co., Eureka, \$29,677; W. J. Beatty, Castroville, \$33,951; N. J. O'Neil, \$30,562; J. W. Hoopes, Sacramento, \$23,949; Peter McHugh, San Francisco, \$35,141. Contract awarded to A. T. Howe, Santa Rosa, \$28,725.

**MENDOCINO COUNTY**—Between Piercy and the northerly boundary. About 2.1 miles to be surfaced with untreated crushed gravel or stone. Dist. I, Rt. 1, Sec. K, Smith Bros. Co., Eureka, \$10,993; Tieslau Bros., Berkeley, \$8,636. Contract awarded to Jas. W. Bertram, Hopland, \$7,131.

**MENDOCINO COUNTY**—Between Dry Creek bridge and Christine. About 2.3 miles to be graded and surfaced with screened gravel and a timber bridge to be constructed. Dist. IV, Rt. 48, Secs. A, B, Kennedy Construction Co., Oakland, \$75,959; H. H. Boomer, San Francisco, \$68,077; Frank C. Cuffe, San Rafael, \$67,970; Contoules Construction Co., San Francisco, \$76,625; Chittenden & Howe, Napa, \$83,311; Granfield, Farrar & Carlin, San Francisco, \$71,209; Healy Tibbitts Construction Co., San Francisco, \$75,233. Contract awarded to Peter McHugh, San Francisco, \$67,631.

**MENDOCINO COUNTY**—Erection and completion of maintenance station building near Boonville. Dist. IV, Oliver S. Almie, San Francisco, \$6,935; R. Hodgson & Sons, Porterville, \$5,750; E. G. Hart, San Francisco, \$7,100; J. W. Cobby & Son, San Francisco, \$5,645; Chas. Swanfelt, Ukiah, \$7,000; Wm. Spivock, San Francisco, \$6,200. Contract awarded to Theodor Johanns, San Francisco, \$5,598.

**MERCED COUNTY**—Between the foot of Pacheco Pass and the easterly boundary. About 37.8 miles to be treated with heavy fuel oil to a width of 3' on each side of the existing pavement. Dist. VI, Rt. 22, Secs. A, B & C, A. Teichert & Son, Inc., Sacramento, \$24,514; Granite Construction Co., Ltd., Watsonville, \$23,419. Contract awarded to Stewart & Nuss, Inc., Fresno, \$12,756.

**MONO COUNTY**—Between Leevining and 2 miles west of Bridgeport. About 23.4 miles to be treated with heavy fuel oil and cut-back asphalt as a dust palliative. Dist. IX, Rt. 23, Secs. H & I. Contract awarded to Basalt Rock Co., Inc., Napa, \$24,364.

**MONO COUNTY**—Furnishing heavy fuel oil as dust inlay between Deadman Creek and Leevining, and between Junction of Routes 23 and 40 and 5 miles west, 21.1 miles. Dist. IX, Rts. 23-40, Secs. F & G, B. Gilmore Oil Co., Los Angeles, \$6,679. Contract awarded to Pacific Tank Lines, Inc., Los Angeles, \$6,886.

**MONO COUNTY**—Between Sonora Junction and 4 miles south of Coleville. About 12.9 miles to be surfaced with crusher run base and bituminous treated crushed gravel or stone. Dist. IX, Rt. 23, Sec. K, Clark & Henery Construction Co., San Francisco, \$111,840; Hemstreet & Bell, Marysville, \$138,546; Geo. Herz & Co., San Bernardino, \$106,986; Valley Paving & Construction Co., Fresno, \$212,671; Fred W. Nighbert, Bakersfield, \$115,374; Granite Construction Co., Ltd., Watsonville, \$148,177. Contract awarded to Southwest Paving Co., Los Angeles, \$84,519.

**MONO COUNTY**—Between Yerby and Casa Diablo Hot Springs. About 12.3 miles to be graded and surfaced with bituminous treated crushed gravel or stone. Dist. IX, Rt. 23, Secs. C & D, George Herz & Co., San Bernardino, \$283,001; Healy Tibbitts Construction Co., San Francisco, \$240,987; G. W. Ellis, Los Angeles, \$252,890; Southwest Paving Co., Los Angeles, \$236,048; C. A. Bayles, Biggs, \$259,137; Von der Hallen & Pierson, Costa, \$338,646; Clark & Henery Construction Co., San Francisco, \$274,250; Fred W. Nighbert, Bakersfield, \$288,662; Hemstreet & Bell, Marysville, \$237,226; Gibbons & Read Company, Burbank, \$243,572. Contract awarded to Macco Construction Co., Clearwater, \$235,097.

**MONTEREY COUNTY**—Between Priest Valley School and the easterly boundary. About 3.2 miles to be surfaced with oil treated gravel. Dist. V, Rt. 10, Sec. C, Tieslau Bros., Berkeley, \$9,740; Roselip Products Co., San Luis Obispo, \$11,500. Contract awarded to Granite Construction Co., Ltd., Watsonville, \$7,248.

**NEVADA COUNTY**—Between Truckee and Hinton. About 8.8 miles to be surfaced with crusher run base and bituminous treated crushed gravel or stone (plant

## Details of Work Done in Counties

mix). Dist. III, Rt. 38, Secs. A & E, Clark & Henery Construction Co., San Francisco, \$179,499; Hemstreet & Bell, Marysville, \$146,622; A. Teichert & Son, Sacramento, \$139,147; Valley Paving & Construction Co., Fresno, \$199,529; Fred W. Nighbert, Bakersfield, \$122,235; Granite Construction Co., Ltd., Watsonville, \$147,395. Contract awarded to Tieslau Bros., Berkeley, \$104,164.

**PLACER AND NEVADA COUNTIES**—Between Airport and Soda Springs. About 20 miles to be bituminous treated. Dist. III, Rt. 37, Secs. E, F, A & B, George French, Jr., Stockton, \$70,338; Hemstreet & Bell, Marysville, \$65,006; A. Teichert & Son, Sacramento, \$85,813; Force Construction Co., Piedmont, \$69,930; Fred W. Nighbert, Bakersfield, \$79,274; Granite Construction Co., Ltd., Watsonville, \$79,329. Contract awarded to C. W. Wood, Stockton, \$66,330.

**SAN BENITO, MONTEREY, SAN LUIS OBISPO AND SANTA BARBARA COUNTIES**—Painting traffic stripes for designating traffic lanes. About 254.25 miles. Dist. V, Rts. 2-22, Esslick & Co., Los Angeles, \$1,575; Independent Construction Co., Oakland, \$2,224. Contract awarded to McEverlast, Inc., Los Angeles, \$1,525.

**SAN BENITO AND SANTA CLARA COUNTIES**—Between 3.2 miles north of Hollister and Pacheco Pass road. About 4.7 miles to be graded and surfaced with bituminous treated crushed gravel or stone surfacing. Dist. V, Rt. 22, Secs B & A, Force Construction Co., Piedmont, \$82,610; Valley Paving and Construction Co., Fresno, \$56,722; A. J. Raisch, San Francisco, \$63,791. Contract awarded to Granite Construction Co., Ltd., Watsonville, \$51,404.

**SAN BERNARDINO COUNTY**—Through Upland. About 2.2 miles to be graded and paved with asphalt concrete. Dist. VIII, Rt. 9, Sec. D, Hall-Johnson Co., Alhambra, \$128,064; Ed. Johnson & Sons, Los Angeles, \$116,067; Steele Finley, Santa Ana, \$104,351; Southwest Paving Co., Los Angeles, \$104,180; Geo. H. Oswald, Los Angeles, \$112,617. Contract awarded to Griffith Company, Los Angeles, \$99,112.

**SAN JOAQUIN COUNTY**—Between Turner Station and Stockton. About 7.1 miles to be graded, 4.9 miles to be paved with Portland cement concrete. Dist. X, Rt. 4, Sec. E, Clark & Henery Construction Co., San Francisco, \$223,739; Frederickson & Watson Construction Co. and Frederickson Bros., Oakland, \$211,954; Jahn & Bressi Construction Co., Inc., Los Angeles, \$211,392; Hanrahan Company, San Francisco, \$203,116; C. W. Wood, Stockton, \$196,067. Contract awarded to N. M. Ball, Porterville, \$195,801.

**SAN JOAQUIN COUNTY**—Between Stockton and Turner Station. 9 timber bridges to be constructed and 2 concrete bridges to be widened. Dist. X, Rt. 4, Sec. E, W. J. O'Neil, San Francisco, \$75,925; J. S. Metzger & Son, Los Angeles, \$57,615; Frederickson & Watson Construction Co. and Frederickson Bros., Oakland, \$65,645; R. B. McKenzie, Red Bluff, \$64,082; Geo. J. Ulrich Construction Co., Modesto, \$60,595; M. B. McGowan, San Francisco, \$71,098; Lord & Bishop, Sacramento, \$63,870; O'berg Bros., Los Angeles, \$73,217; Force Construction Co., Piedmont, \$65,270; Bodenhamer Construction Co., Oakland, \$72,662. Contract awarded to Thermotite Construction Co., Inc., San Jose, \$57,537.

**SAN LUIS OBISPO COUNTY**—About 7 miles north of Paso Robles, R. C. girder bridge across San Marcos Creek, four 40-foot spans on concrete bents and grading and paving approaches with Portland cement concrete. Dist. V, Rt. 2, Sec. A, Neves & Harp, Santa Clara, \$21,608; Oberg Bros., Los Angeles, \$21,514; Robinson Roberts Co., Los Angeles, \$22,740; Lord & Bishop, Sacramento, \$21,953; Hanrahan Co., San Francisco, \$21,959; Bodenhamer Construction Co., Oakland, \$20,653. Contract awarded to L. C. Clark and C. E. Doughty, Visalia, \$20,116.

**SAN LUIS OBISPO COUNTY**—Between Arroyo Grande and Pismo. About 2.8 miles to be treated with heavy fuel oil on each side of existing pavement. Dist. V, Rt. 2, Sec. E, Roselip Products Co., San Luis Obispo, \$2,915; Cornwall Construction Co., Santa Barbara, \$3,222. Contract awarded to W. A. Dontanville, Salinas, \$2,755.

**SAN LUIS OBISPO COUNTY**—Between Atascadero and Paso Robles. About 9.1 miles to be treated with

heavy fuel oil on each side of existing pavement. Dist. V, Rt. 2, Sec. E, Roselip Products Co., San Luis Obispo, \$9,488; W. A. Dontanville, Salinas, \$10,096; Granite Construction Co., Watsonville, \$13,624; Cornwall Construction Co., Santa Barbara, \$10,907; California Crane Service, Los Angeles, \$11,151; H. B. Cox & Son, Pasadena, \$12,367. Contract awarded to Cook & Clark, Santa Barbara, \$8,637.

**SAN MATEO COUNTY**—Undergrade crossing S. P. R. R. near Henderson Station. 2 concrete abutments with wing walls, installing drainage system and pumping equipment, grade and pave with Portland concrete cement 0.4 miles roadway, A. J. Raisch, San Jose, \$102,031; Frederickson & Watson Construction Company and Frederickson Bros., Oakland, \$101,273; Healy-Tibbitts Construction Co., San Francisco, \$98,728; M. B. McGowan, San Francisco, \$106,234; Clyde W. Wood, Stockton, \$103,686; Hanrahan Company, San Francisco, \$107,439. Contract awarded to Barrett & Hill, San Francisco, \$95,188.

**SHASTA COUNTY**—Between Redding and Fall River. About 60.1 miles to be treated with heavy fuel oil and crusher run base asphalt as a dust palliative. Dist. II, Rt. 28, Secs. A, B, C & D, Granite Construction Co., Ltd., Watsonville, \$14,860; Basalt Rock Co., Inc., Napa, \$14,373; Jack Sasson, Hayward, \$15,267; C. W. Wood, Stockton, \$15,027. Contract awarded to D. McDonald, Sacramento, \$13,154.

**SISKIYOU COUNTY**—Between 1.5 miles north of Yreka and the Klamath River. About 7 miles bituminous surface treatment to be applied to the existing roadbed. Dist. II, Rt. 3, Sec. C, Dunn & Baker, Klamath Falls, Oregon, \$27,245. Contract awarded to Heafey-Moore Co., Oakland, \$25,702.

**SUTTER AND BUTTE COUNTIES**—Between Yuba City and Biggs road. About 19.2 miles to be bituminous treated, rock borders. Dist. III, Rt. 3, Sec. A, Clark & Henery Construction Co., San Francisco, \$79,438; Southern California Roads Co., Inc., Los Angeles, \$79,703; A. Teichert & Son, Inc., Sacramento, \$86,278; Granite Construction Co., Ltd., Watsonville, \$86,783; J. E. Johnston, Stockton, \$81,253; Fred W. Nighbert, Bakersfield, \$71,363; Hemstreet & Bell, Marysville, \$86,892. Contract awarded to Jones & King, Hayward, \$68,487.

**TRINITY AND SHASTA COUNTIES**—Between Weaverville and Tower House. About 32 miles to be bituminous treated. Dist. II, Rt. 20, Secs. A, B & A, Geo. French, Jr., Stockton, \$61,579. Contract awarded to Heafey-Moore Co., Oakland, \$61,223.

**VENTURA COUNTY**—Girder deck bridge across Santa Clara River. 21 8 1/2' spans on concrete piers and abutments. District VII, Rt. 2, Sec. C, Merritt Chapman Scott Corp., San Pedro, \$318,903; Owl Truck Co., Inc., Compton, \$298,530; Oberg Bros., Los Angeles, \$250,749; Union Engineering Co., Ltd., Huntington Park, \$312,274; Maceo Construction Co., Clearwater, \$204,156; General Engineering Corp., Ltd., Los Angeles, \$326,238; Herbert M. Barush Corp., Ltd., Los Angeles, \$303,691; Robinson Roberts Co., Los Angeles, \$341,676; Lynch-Cannon Engineering Co., Los Angeles, \$317,307; R. H. Travers, Los Angeles, \$208,115; Gutleben Bros., Oakland, \$308,116; Rocca & Caletti, San Rafael, \$255,098; Bodenhamer Construction Co., Oakland, \$332,151. Contract awarded to Mittry Bros. Construction Company, Los Angeles, \$232,303.

### ARCHITECTURAL AWARDS For Month of June

**CALIFORNIA INSTITUTION FOR WOMEN**, near Tehachapi—Administration Building and cottages; Contract for plumbing work to Thomas Havery Company; Los Angeles, \$17,105; contract for electrical work to R. R. Jones Electric Co., Pasadena, \$6,800.

**MENDOCINO STATE HOSPITAL**, Talmage—Ward Building No. 14; Contract for general work to Minton Company of Palo Alto, \$47,674; contract for plumbing work to J. A. Fazio, Oakland, \$5,989; contract for heating work to Geo. C. Bell, Oakland, \$3,800; contract for electrical work to Roy M. Butcher, San Jose, \$1,456.

## Selfishness Blamed For Large Increase In Auto Accidents

ACCIDENT reports received by the Division of Motor Vehicles for the month of May, 1931, show large increases in the total number of accidents and persons injured. However, the resultant deaths increased less than 10 per cent for the first time since February, 1931.

Reports were received on 2852 accidents involving injury and death. This is 22.88 per cent greater than May, 1930. The number of persons injured in these accidents (4106) is 31.60 per cent greater than last year, while the deaths, which total 218, increased only 7.39 per cent.

For the first time since August, 1930, the number of persons killed in auto versus auto accidents exceeded the number of pedestrians killed. There were 61 people killed in May auto versus auto accidents and 52 pedestrians. These two types of accidents caused 51.83 per cent of all May motor vehicle deaths.

### HAD BEEN DRINKING

A total of 4473 drivers were reported involved in May accidents, of which 3766, or 84.20 per cent, were males, 595, or 13.30 per cent, females, while the sex of 112 (2.50 per cent) was not stated.

Forty-two drivers were reported to have been "asleep at the wheel," while 214 "had been drinking."

"Violation of right of way" ranked first in the cause of accidents for which the drivers were definitely responsible. "Excessive speed" was second, "drove off the roadway" third and "driving on the wrong side of the road" fourth. These four causes, all of which are within the control of the drivers, represent 50.88 per cent of the total causes of accidents attributed to the drivers. Three other causes prominent in May accidents were "improper turning," "improper passing" and "slowing down or stopping."

### TOLL OF PEDESTRIANS

Pedestrians totaling 669 were involved in May accidents, of which number 52 were killed and 617 injured. As is usually the case, pedestrian deaths were most numerous among young children and elderly people, there being only 14 such deaths between the ages of 10 and 39 years.

## Commission Adjourns Out of Respect for Mrs. Toner's Memory

MRS. JAMES A. TONER, daughter of Timothy A. Reardon, California Highway Commissioner, and daughter-in-law of Dr. J. M. Toner, Director of Institutions, died June 24th.

At its regular meeting June 25th, the Highway Commission adjourned out of respect to the memory of Mrs. Toner and passed a resolution of sympathy which was spread upon the minutes of the commission and copies sent Mr. Reardon and Dr. Toner. The resolution said:

WHEREAS, The California Highway Commission, this day in meeting assembled, has been informed of the passing of Mrs. James A. Toner, the beloved daughter of our associate and fellow member, Timothy A. Reardon; and

WHEREAS, The commission desires to express its profound sorrow at the loss suffered by Commissioner Reardon; therefore be it

Resolved, That a copy of this resolution be spread upon the minutes of this commission, and the sincere sympathy and consolation of this commission be offered to Commissioner Reardon and his family in their bereavement; and be it further

Resolved, That when this commission this day adjourns that it shall do so out of respect to the memory of Mrs. Toner.

Most pedestrian accidents occurred at intersections, 247 were injured and 11 killed while crossing intersections in May, the second largest number of pedestrian accidents occurred in the streets between intersections, with 183 injured and 10 killed. Of the 669 pedestrians injured, 22 had been drinking, 3 had physical defects, 42 were confused by traffic, the view of 29 was obstructed, while 62 were reported to have been careless.

Four thousand five hundred sixteen vehicles were reported involved in the 2852 accidents. Of these vehicles 86.56 per cent were passenger cars. Only 117 were definitely reported to have been defective mechanically.

### WHEN THEY OCCUR

The peak hour of all accidents during May was from 5.01-6 p.m., while the peak hour of fatal accidents only was 7.01-8 p.m. More accidents occurred on Sundays than any other day of the week. Saturdays were second in the total number of accidents.

## Arizona Pays State High Tribute; Will Model After Highway Patrol

CALIFORNIA has been signally honored by its sister state, Arizona.

Anxious to establish an efficient, up-to-date, thorough organization of highway patrolmen, Arizona has picked this State's police system upon which to model her force.

Following a series of conferences between Superintendent Raymond Cato and Arizona authorities, F. G. Yoder, district inspector and senior instructor of the California Highway Patrol, was chosen for this highly important organization program. He left for his temporary post last month, and will remain in Arizona until he has the new body of men functioning smoothly.

In choosing Yoder to represent this State, Governor James Rolph, Jr., and Chief Cato took into account not only the all-around ability of the inspector, but his fine record as an officer.

The recipient of this signal honor is 39 years old and comes from Orange County. He joined the Highway Patrol in 1923, previous to that time having gained detective and police experience, first with a private detective agency and second with the Santa Ana police department, where he functioned for a year as a patrolman.

Long a student and finally an authority on motor vehicle law and its interpretation, Yoder worked his way up in the State service from patrolman to senior instructor in the training school at Sacramento. There he had a lot to do with teaching officers and men of the California Highway Patrol system the meaning and usage of the State Vehicle Law.

Feeling deeply the honor conferred upon him, Yoder issued the following statement prior to his departure:

"I realize fully, and appreciate, the confidence placed in me by His Excellency, Governor James Rolph, Jr., and Chief E. Raymond Cato. I am also aware of the responsibility to the people of Arizona.

"My only hope is that I may take into the State of Arizona the spirit of the California Highway Patrol and that the friendly feeling now existing between the people of these two states may be broadened by the cooperation of their very similar patrol organizations."



F. G. YODER

### *Autoists and Press Praise Clean Roads*

Clean and unobstructed State highways over the Independence Day holiday period have won high commendation both from autoists and newspapers.

Governor Rolph's order that oiling be stopped on State roads July 3d to permit of easy and comfortable travel during the heavy three-day vacation, aroused much favorable comment throughout the State.

Contractors handling State projects received their meed of praise, too, for their unselfish action in removing, when possible, working equipment from the roads.

# Association Approves Proposals Affecting Highway Construction

**T**WO MATTERS of importance affecting highway construction which were urged by representatives of California—the orderly addition of roads to the State highway system and amendment of Federal Statutes regarding the right of way situation across public lands—were approved by the Western Association of State Highway Officials at its annual meeting held at the St. Francis Hotel in San Francisco on July 10th and 11th.

The subject of additions to the State highway system was presented to the meeting by C. H. Purcell, State Highway Engineer, who explained the procedure adopted in California, whereby additional roads are authorized to be included in the State highway system by the Legislature only after an engineering study by the Division of Highways. These studies, as Mr. Purcell pointed out, are carried on in accordance with certain definite principles laid down by the legislative body and permit a study of cost of construction, traffic to be served, the general development of the locality and the State and the relation of the road to the remainder of the highway system.

#### ASSOCIATION RECOMMENDS STUDIES

In adopting a resolution of endorsement of this plan, the Western Association went a step further and suggested that the states begin a study of additions to their respective Federal aid systems. The Association favors, before such additions are made, that an expert engineering study be made.

The subject of possessory rights acquired by mining locators on public lands which interfere with rights of way for highways was discussed by Frank B. Durkee, Right of Way Agent, from the headquarters office. The Association adopted a resolution petitioning Congress to enact such additional legislation as may be necessary to protect the rights of the public to highway rights of way, the right to take road building materials from the public domain, and the right of the Forest Service and other departments to prohibit the erection of unsightly billboards and other structures on Federal lands acquired under the

mining laws and under the guise that they are to be used for mining purposes.

Other representatives of the department who appeared before the meeting were C. S. Pope, Construction Engineer, whose paper was entitled "Pavement Construction in 1930: Portland Cement Concrete and Asphalt Concrete," and T. H. Dennis, Maintenance Engineer, who discussed Oiled Road Construction.

#### CHAIRMAN KELLY WELCOMES DELEGATES

Earl Lee Kelly, Chairman of the California Highway Commission, welcomed the delegates to California upon behalf of Governor James Rolph, Jr., and the Department of Public Works. Governor Rolph sent a letter of greeting, explaining that he was unable to be present because of the funeral of the wife of Lieutenant Governor Frank F. Merriam, which was being held in Long Beach on the day of the opening. A telegram of regret was also received from James I. Herz, Deputy Director, who was also in southern California attending the funeral of Mrs. Merriam.

Chairman Kelly and Commissioner Hopkins attended sessions of the convention which extended over Friday and Saturday. Colonel Walter E. Garrison, Director of the Department of Public Works, was present for a short while on Saturday morning, July 11th, in company with the Congressional delegation, then touring California for the purpose of inspecting the proposed State-wide water development. Colonel Garrison accompanied this delegation during its entire trip through the State.

#### VISITORS VIEW CALIFORNIA PROJECT

All of the states and territories having membership in the Association were represented except Washington and the Territory of Hawaii. Following the meeting in San Francisco, visiting engineers and officials were taken on trips over California highway projects as guests of the engineers of the Division of Highways.

Definition—A road hog is a motorist who has heard of every automobile accessory except courtesy.





Determined efforts on the part of the Division of Water Resources under Edward Hyatt further to push its water conservation campaign are pictured in the official report of that department for the month of June. Flood control and reclamation activities, tabulation of dam applications and irrigation district news are included in the report which follows:

#### FLOOD CONTROL

At the request of the Reclamation Board, investigation and surveys were made, design and plans were prepared, and reports submitted to the Reclamation Board on a weir to be constructed in the Wadsworth Canal of Sutter-Butte By-Pass Project No. 6. This office will construct the dam with our own equipment and force at an estimated cost of \$8,730. Materials have been ordered and construction commenced on June 23d.

This weir is to be constructed for the purpose of holding the water surface in the Wadsworth Canal to a higher level to prevent the draining out of surface waters in the territory adjacent to the canals.

**Maintenance of Sacramento and San Joaquin Drainage District.**—Small crews have been engaged in clearing vegetation out of certain drainage canals and noxious weeds from the levees. The emergency repairs to the Davis weir No. 2 in the Sutter By-Pass were completed on May 27th, at which time the flashboards were put in place. The water was released on April 26th in the evening, and the channel was filled to approximately the same elevation on May 28th.

Owing to the dryness of the season it has been necessary to install four small pumps to care for the willows planted for levee protection on the east Sutter By-Pass levee for a distance of about eleven miles, in connection with which the ditches were cleaned and repaired.

#### SACRAMENTO—SAN JOAQUIN WATER SUPERVISOR

During the past month the regular field work has continued, comprising measurements of all diversions, stream flow, and return water throughout the Sacramento-San Joaquin territory.

The salinity sampling in the Sacramento-San Joaquin Delta has been extended so that at present samples are being received from forty-seven stations. The accompanying table shows the comparison between 1931 and 1924 stream flow and salinity data. It will be noted that at some of the stations the stream flow is considerably less than it was in 1924 at the same time and also that the salinity encroachment is some-

what in advance of the similar encroachment at this time in 1924.

Station	Discharge in Sec. Ft.	
	1931	1924
Sacramento River at Red Bluff	6/11 2990	6/11 2980
Sacramento River at Butte City	6/9 1580	6/9 1680
Sacramento River at Colusa	6/8 1310	6/8 1650
Sacramento River at Knights Landing	6/8 1080	6/8 1400
Sacramento River at Verona	6/11 1530	
Sacramento River at Sacramento	6/15 1400	6/15 1260
Feather River at Nicolaus	6/10 223	6/10 109
American River at H St. Bridge	6/15 300	6/15 136
San Joaquin River near Vernalis	6/13 370	6/13 573
Combined flow of Sacramento River at Sacramento and San Joaquin River near Vernalis	6/13 1710	6/13 1670

#### Salinity Tests Sacramento-San Joaquin Delta

Station	Salinity in parts of chlorine per 100,000	
	6/10/31	6/10/24
Bullhead Point	1080	---
O and A Ferry	560	472
Collinsville	380	300
Three Mile Slough Bridge	70	---
Emmatt	84	---
Rio Vista	10	---
Antioch	270	220
Jersey	42	29
Webb Pump	25	---

A meeting of the Permanent Committee of the Sacramento-San Joaquin River Problems Conference was held on May 28th and the water situation was critically reviewed.

The Committee decided that all of the major projects in the Sacramento Valley should be held responsible for waste prevention and conservation and that each should be asked to appoint a Conservation Officer to effect this conservation and to cooperate with the Water Supervisor and officials of the War Department. This recommendation was carried out and the various projects have appointed their Conservation Officers and inaugurated an intensive conservation campaign.

Warnings have been sent out by the Water Supervisor to all of the individual water users under all of the largest projects and to all water users making diversions of any size from the river. These warnings have stated that the rule to be followed is that diversions shall be cut by the amount of waste found under them. During the past week a representative from the War Department and the Water Supervisor have completed an inspection of the control and use of water on nearly all of the larger projects in the Valley.

It was found that, on the whole, a sincere effort is being put forth on the part of the water users to cut down waste, and with the placing in effect of additional steps recommended to the various districts by the Water Supervisor, it is felt that

# Flood Control and Reclamation Details

Continued from preceding page

everything possible of accomplishment through waste prevention and conservation will have been done.

It remains to be seen whether or not a further drop in stream flow will require other additional regulations in the nature of a schedule, prorating the supply, etc.

## COOPERATIVE SNOW SURVEYS

The work on this project during the past month has comprised almost entirely office studies in relating stream flow and precipitation to run-off. In each major stream basin, the stream flow stations now being maintained which would best reflect the snow run-off are selected for the various partial areas and sub-basins. The computations are then made to obtain for each of the stations selected an estimated long-time run-off record. This estimate is made by comparison with the actual long-time record at the principal gaging stations. With an estimated long-time stream flow record at each station, tentative normals for the water content at the various snow courses can be computed by comparison with the run-off data.

Some office work has been done in taking off the areas of the elevation zones into which the various basins are divided. These areas are required in the reduction of the snow measurements to obtain a weighted mean water content for a sub-basin.

Plans for the next season's work are being formulated and a budget has been prepared which permits of the addition of a few more snow courses in some of the basins and a small extension of the work.

A trip was made for conference with the members of the Nevada Cooperative Snow Survey Committee relative to forecasts and data in connection with the eastern slope basins.

## WATER RESOURCES

*Napa Valley Investigation.*—Napa River and Conn, Rector and Day Creeks have been measured regularly and the water levels taken in a number of wells throughout Napa Valley.

*South Coastal Basin Investigation.*—This investigation has continued in a routine way throughout the month. Of special interest in this work is the report which was completed on work necessary to determine the possibility of salt water intrusion along the Orange County coast and which is to be presented to the Orange County Cooperative Committee at an early date.

## WATER RESOURCES REPORTS

Satisfactory progress has been made in completing the reports on the water resources investigations covering the State Water Plan for the coordination, develop-

ment, conservation and utilization of the water resources of the State, authorized under the provisions of Chapter 832 of the Statutes of 1929.

## IRRIGATION

While the numerous showers during the month in the Central Valley resulted in some damage to maturing berry, fruit and grain crops, they will to a limited extent relieve the shortage of irrigation water.

Field visits for conference or inspection of works were made to the La Canada, South Montebello and Walnut irrigation districts in Los Angeles County; the Santa Fe, San Dieguito, Vista, Fallbrook, Ramona, Lakeside, San Ysidro and La Mesa, Lemon Grove and Spring Valley irrigation districts in San Diego County; the Carpenter, Serrano, Newport Heights and Newport Mesa irrigation districts in Orange County; the Beaumont and Palo Verde irrigation districts in Riverside County; the Hollister irrigation district in San Benito County; and the Merced and El Nido irrigation districts in Merced County.

About 5 per cent of the excavation and 40 per cent of the structures remained to be built on June 1st to complete the irrigation system of the El Nido irrigation district.

At a meeting of the California Bond Certification Commission held on June 17 at San Francisco, an expenditure order of \$900 by the Thermalito irrigation district was approved for developmental purposes within the district.

Agreements between the Corcoran irrigation district and Meridian Limited and the Guaranty Investment Company, corporations, for the lease of certain wells by the district to be installed and equipped by the corporations on land owned by them in the district, and to yield 32 second-feet of water, were approved.

General discussion was had by the Commission relative to the plans for refunding present bond issues by several of the irrigation districts in the State.

## DAMS

During June efforts have been made to get to dams in the High Sierras which are accessible for only a few months in the year. An endeavor is being made to have repairs completed on all existing dams this season.

To date 763 applications for approval of existing dams are on file; 70 for approval of plans and specifications for construction or enlargement and 156 for approval of plans for repairs or alterations.

### APPLICATIONS RECEIVED FOR APPROVAL OF PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF DAMS

Dam	Owner	County
White House Creek	Humphreys Estate Inc.	San Mateo
Verdugo Wash	L. A. County Flood Control District	Los Angeles

# \$5,770,000 Dam Wins Approval of State

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## APPLICATIONS RECEIVED FOR APPROVAL OF PLANS FOR REPAIRS OR ALTERATIONS

Dam	Owner	County
Spaulding	R. D. Craig	Modoc
Big Santa Anita	L. A. County Flood Control District	Los Angeles
Swanzy Lake	Calif.-Hawaiian Sugar Refining Corp.	Solano
San Jacinto	A. C. Agee	Riverside
Hall Canyon, Lower	Associated Oil Company	Ventura
Devils Gate	L. A. County Flood Control District	Los Angeles

## PLANS APPROVED FOR CONSTRUCTION OR ENLARGEMENT OF DAMS

Dam	Owner	County
Pine Canyon	City of Pasadena	Los Angeles
Lower Lindsay	Pacific Gas and Electric Co.	Nevada

The City of Pasadena on September 30, 1930, filed application, as provided for in the law governing the supervision of dams, with the State Engineer for approval of plans and specifications for construction of a concrete dam at Pine Canyon Site Number 2 on the San Gabriel River about four miles upstream from Azusa, the reservoir back of this dam to have a storage capacity of about 64,000 acre feet.

On March 18, 1931, the city filed an amended application in lieu of the one filed in September. Under the amended application it is proposed to construct a dam of the same type at the same location but 50 feet less in height than that originally contemplated. The reservoir storage capacity would be reduced from 64,000 acre feet to about 40,000 acre feet under the new proposal.

Because of the magnitude, importance and many technical considerations involved in the proposed construction, the State Engineer appointed a Consulting Board consisting of preeminently qualified geologists and engineers to advise on the safety features of the dam and appurtenant structures. Based on the findings and conclusions of the Board together with careful study by the department, the State Engineer approved the City's amended application June 2, 1931.

The estimated cost of the dam, exclusive of conduits and other features of the project, is given by the city as \$5,770,000.

## PLANS APPROVED FOR REPAIRS OR ALTERATIONS

Dam	Owner	County
Folsom	Pacific Gas and Electric Co.	Sacramento
Big Santa Anita	L. A. County Flood Control District	Los Angeles
Sardine Lake	Archibald Farrington	Mono
Lower Hall Canyon	Associated Oil Company	Ventura

## WATER RIGHTS

Twenty-two applications to appropriate water were received during May, thirty were withdrawn or canceled, and twenty-four were approved. Eleven permits were revoked and fifteen passed to license.

Among the applications received were seven for mining purposes, including two rather large ones—one by Wm. F. Bickel of Auburn to appropriate 25 cubic feet per second from Mill Creek in Sierra County and the other by Geo. W. Lischer of Camptonville to appropriate a like amount from Willow Creek in

Yuba County. A third application of unusual importance was received from Geo. L. Dodds et al., seeking an appropriation of 10 second feet and 10,000 acre feet from Escondido Creek in San Diego County for irrigation and domestic purposes.

Among the more important applications approved were the following:

Two by the City of Monrovia allowing 10 second feet and 1000 acre feet per annum from Sawpit Canyon for municipal purposes.

Eight by the County of Los Angeles for the benefit of Los Angeles County Park.

One by El Dorado Irrigation District allowing 5000 acre feet per annum from Weber Creek in El Dorado County for irrigation, the estimated cost of development being \$450,000.

One by Santa Cruz Development Company allowing 3.5 second feet from Branciforte Creek in Santa Cruz County for domestic purposes on summer home subdivision, the estimated cost of the development being \$100,000.

Inspection of projects under permit in Sacramento, San Joaquin, Tuolumne, Stanislaus, San Mateo, Santa Clara, Santa Cruz, and Monterey counties was completed for the current season.

## ADJUDICATIONS

Shasta River (Siskiyou County). Case pending in the Superior Court of Siskiyou County.

Whitewater River (San Bernardino and Riverside counties). Case pending in the Superior Court of Riverside County awaiting developments in regard to the proposed All American Canal from Colorado River.

North Cow Creek (Shasta County). Case pending in the Superior Court of Shasta County, awaiting the court's pleasure in placing it on the calendar.

Oak Run Creek (Shasta County). Case pending in the Superior Court of Shasta County awaiting the entry of a decree in the North Cow Creek case.

Clover Creek (Shasta County). Case pending in Superior Court of Shasta County awaiting the court's pleasure in placing it on the calendar.

Butte Creek (Siskiyou County). Case pending in the Superior Court of Siskiyou County awaiting action by the parties involved.

Los Alamos Creek (Santa Barbara County). Division's report as referee submitted to the Superior Court on May first.

Davis Creek (Modoc County). A tentative decree has been circulated among counsel and is now under consideration by the Superior Court.

Mill Creek (Modoc County). More than eighty per cent of the water users have signed the stipulation for consent judgment which was presented at the conference held at Lake City on March 17, 1931. The stipulation is now being circulated among the non-resident parties.

Deep Creek (Modoc County). Distribution of the waters of Deep Creek was continued throughout the month in accordance with the trial schedule of allotments which was adopted at the conference held at Cedarville on March 16, 1931.

Franklin Creek (Modoc County). Administration of the schedule of allotments for trial distribution during the 1931 irrigation season was continued throughout the month.

### HERE'S SOUND ADVICE FOR EVERY EMPLOYEE

WE are now in the midst of the vacation season—our peak period of traffic. Those using the roads at this time are on pleasure bent, touring the coast, valley and high mountain regions.

It should be the aim of our entire organization to exercise every precaution for the safety of this traffic, and by uniformly courteous treatment contribute our share towards their thorough enjoyment of this period.

\* \* \*

(Instructions issued June 25 by Charles H. Purcell, state highway engineer, to employees of the Division of Highways.)

## REPORT SHOWS WORK DONE BY WATER DIVISION

(Continued from page 41.)

New Pine Creek (Modoc County). Field work on the investigation of the water supply and use of water on New Pine Creek was continued throughout the month.

Eagle Creek (Modoc County). The case of Arthur J. Harris et al. vs. Sarah L. Adams et al. involving the determination of the water rights on Eagle Creek, Modoc County, was referred to the Division by the Superior Court on May 13, 1931. A field investigation of the water supply and use of water from the stream was commenced immediately following the reference and has been continued throughout the month.

#### WATER DISTRIBUTION

Cedar, Davis, Deep, Emerson, Franklin, Mill, New Pine, Owl, Pine and Soldier Creeks (Modoc County). Water master service on these streams was continued throughout the month.

Pit River (Modoc and Lassen Counties). Supervision of diversions from Pit River in Big Valley and in Hot Springs Valley was continued throughout the month.

North Cow, Oak Run and Clover Creeks (Shasta County). Water master service on these streams was continued throughout the month.

Little Shasta River (Siskiyou County). Water master service on this stream was continued throughout the month.

Lower Shasta River (Siskiyou County). Water master service on this stream was commenced June first.

#### MANY MOTOR LAWS

The average citizen and his automobile received more attention during the recent sessions of various state legislatures than any other phase of human activity. This is indicated by reports received by the Automobile Club of Southern California, showing that more than 6500 bills were introduced in the 48 states, an average of more than 100 per state, pertaining to motor vehicle traffic.

A manufacturing genius is a man who makes a commodity just strong enough to hold together until the last installment is paid.—*Judge.*

## Lodge Will Set Up Tablet as Marker For Historic Spot

RESPONDING to a request of the Grand Lodge of Odd Fellows, California, members of the staff of the State Highway Division have been in conference with officers of the fraternity at a point on the Kit Carson trail, near Red Lake, as to the location of a particularly interesting marker which the order proposes to erect.

It seems that in the year 1849 there was some competition between the Masons and Odd Fellows for installation of the first lodge in California. A party of Odd Fellows from the east bearing a dispensation to form a lodge, pushed over the ridge and as soon as they were satisfied that they were within the California line, they proceeded to paint the names and dates of their arrival on large rocks.

#### ROCKS ARE MARKED

Using what appears to be a white lead solution, they printed their names and the date, August 4th, very clearly on the rocks. Until recent years all the names were legible but they are now fading. Some, in more protected places, are fairly clear.

The Grand Lodge has, by resolution, authorized insertion of a bronze tablet in one of the rocks and erection of a large pillar where the pioneers camped. The officers asked Walter E. Garrison, Director of Public Works, to assure the location as against road changes and as to easement.

#### FIND PARKING SPACE

The director sent the staff members to investigate and report. They found that by providing a crossing across a small gully and clearing some space, an excellent parking place may be made at the site. It is near both Tragedy Springs and the Kit Carson marker.

#### ENGINEERS TO MEET

Plans are under way for the 1931 convention of the American Association of Engineers, which is to be held at Huntington, West Virginia, on September 28, 29 and 30. The Huntington Chapter will act as host to the delegates and a cordial invitation is extended to all engineers interested in the social and economic side of the profession to attend this meeting.

Read this one according to sex—"What does it mean when that man (lady) sticks his (her) hand out the way he (she) does?"

"That he's (she's) going to turn to the right, or to the left or go straight ahead."

## State Prison Camps Give Hope To Men And Assist In Their Regeneration

By FRED R. SEYMOUR, Supervisor, Prison Road Camps

**W**HY DO WE put people in prison? Is it a form of collective revenge which society imposes on those who violate its rules, a studied plan for rehabilitation, or the easiest way to handle a perplexing problem? I believe the latter is the basis of our penal system, which is, perhaps, the most outstanding failure of our modern civilization. This great problem, involving a stupendous economic and social loss, is not alone a responsibility of government, but is a problem which rests on the shoulders of every citizen, and will not be solved until met squarely without evasion.

These men are not in prison of their own volition, but because we put them there, and why? To eventually release them with the expectation they will become good citizens and helpful to society, due to rehabilitation during the period of imprisonment, or release them more hardened, more resentful, and more determined to be outlaws of their kind? It seems obvious that any form of imprisonment which does not contemplate the regeneration of the criminal is but adding another crime by society to the many committed by individuals.

I believe the only panacea is work—not the mentally degrading and nonobjective toil of breaking up rocks with hammers, enervating toil over rows of noisy, dusty and unhealthy jute looms, or manufacturing commodities to be sold on the open market in competition with free labor, but rather work that takes those who have earned the privilege, by a period of good behavior inside, away from the prison walls into the great outdoors; healthful, interesting and constructive work that upbuilds physically and spiritually. I believe that worthwhile work in close contact with nature is the surest way to bring surcease to troubled, embittered and vengeful

souls, to develop self-confidence, ambition, and restore pride.

Idealistic? Yes, but practical, as evidenced by the success of California prison road camps, to which vacationists are indebted for many hundreds of miles of broad highways into wonderlands of nature. These are honor camps, where the men are well housed, well clothed and well fed. Assignment to the camps is a privilege, which must be earned by an extended period of good work and good conduct inside. A wage is paid, from which are deducted individual expenses, thus encouraging economy. The average prisoner leaves camp with \$80 to \$100, a sufficient amount to finance him in securing employment. Additional time credits, amounting to one day for each two days in camp are granted road workers.

These men, or rather boys, for most of them are under 30, are in trouble largely due to lack of training in honest labor. Many arrive at camp with considerable misgiving as to their ability to survive hard work, and later derive considerable pride from the knowledge of their physical fitness and the fact that work is not necessarily fatal.

The influence of the road camp in preserving discipline within the prisons can not be overestimated, as the majority of the men are striving for a record which will enable them to receive road camp assignment. Unfortunately, however, the number that can be so used is but a small percentage of the total prison population, and many deserving men are doomed to lose the benefit of this experience. A possible way of extending this work of rehabilitation may be in a State plan of mountain reforestation, where honor camps could be established to supply the labor.

The individual may ask, where does my responsibility lie, and what can I do to help



FRED R. SEYMOUR

solve this problem? I would first suggest a mental readjustment to the understanding that convicts are not a peculiar species unlike ourselves, but are the brothers and sons of our friends and neighbors, with hopes, loves and ambitions such as our own. We can help by giving jobs to men paroled and discharged, and assist them with honest friendship and encouragement, without unreasonable expectations.

It is of vital importance to eliminate from the mind of the man who has "done time" a sense of persecution and continued public condemnation. He personally feels he has discharged his debt and is entitled to a fresh start.

We can help by encouraging the enactment of more enlightened legislation, and discourage foolish legislation to curtail individual liberty and responsibility.

Perhaps a little more consideration for our neighbors' problems and a little help and encouragement when most needed will contribute greatly to the reduction of our prison population.

### CALIFORNIA'S RECORD IN MOTOR CAR OWNERSHIP

California stood second to New York in the number of passenger cars, taxicabs and buses licensed during the year 1930, according to a tabulation put out by the United States Bureau of Public Roads. Out of 23,000,000 registrations for these types of vehicles, California had 1,810,000, while New York had only 150,000 more.

California, too, showed one of the highest percentages of increase over 1929, the record for the Golden State being 3.4 per cent on a total increase of 67,000 over the previous year. Throughout the Nation the gain over 1929 was only .08 per cent in total motor vehicle registration.

If motor trucks are added, California and New York were the only two states to have more than two million licensed motor vehicles in operation last year. The number of trucks in California numbered 230,000, approximately 100,000 less than were operated in New York State.

### CROSSING ACCIDENTS DROP

Grade crossing accidents in California during the first five months of 1931 totaled 967, a decrease of 19.6 per cent below the 1930 figure of 1202, according to report compiled by Joseph G. Hunter, Transportation Engineer of the Railroad Commission.

"The sedan," he says, "was parked at the side of the road, and as I drew near I could hear noises of a struggle within. I could hear a rustle, probably of silk, and the muffled panting of a man. The body of the car swayed slightly to and fro. I heard a curse, and then, again, the muffled panting. I crept softly around to the side, looking into the window, and saw—

"A man trying to fold a road map the same as it had been!"

## New and Used Auto Sales Increase Says Col. Snook's Report

**T**HE general public is buying both new and used cars in much greater quantity than a year ago!

That is the conclusion reached by the Division of Motor Vehicles in its monthly report to the Director of the Department of Public Works.

Colonel Snook reports that there is an increase in registrations against the first five months in 1930 of 39,515, of which 27,217 were classed as **PLEASURE CARS**.

An increase is also shown in the number of transfers handled as of May 31st. In 1930 there were handled by the division 462,874 transfers, whereas in the same period this year 484,736 were made, an increase of 21,862.

Altogether the division has collected for the first five months of this year \$8,638,851 in motor vehicle registration fees.

During the month of May 6637 nonresident permits were granted, bringing the total number for 1931 to 27,741, an increase of 396 over the same period of 1930.

### ROAD TROUBLE IN ARIZONA

(From *Arizona Highways*)

A northern Arizona road patrol foreman, upon being relieved of his duties, was asked to turn in a report of equipment, etc., which he was turning over to the new foreman. The auditor received the following report:

Feb. 4, 1931.

"I hereby transfer to the new Patrol Foreman the following:

A miscellaneous bunch of equipment, some good, some bad, with all attachments and accessories that have not been removed or stolen.

I also transfer certain animosities not mentioned herein but later by devious means will be made known to the new Patrol Foreman.

Also a certain amount of grief caused by wrong clerical reports, indifference to the job, talking too much and jealousies among his hired help.

Also seventy-four miles of road on which he may slave, work and sweat twenty-four hours a day if he wishes, but it will be the same old road.

I also transfer to him my salary, this being the only transfer that I regret.

Signed: Old Patrol Foreman."

The average citizen and his automobile received more attention during the recent sessions of various state legislatures than any other phase of human activity, the Erskine Traffic Bureau of Harvard University showing that more than 6500 bills were introduced in the forty-eight states, an average of more than 100 per state, pertaining to motor vehicle traffic.

STATE OF CALIFORNIA  
**Department of Public Works**

HEADQUARTERS: PUBLIC WORKS BUILDING, ELEVENTH AND P STS., SACRAMENTO

JAMES ROLPH, JR.-----Governor

COLONEL WALTER E. GARRISON-----Director

JAMES I. HERZ-----Deputy Director

**DIVISION OF HIGHWAYS**

**CALIFORNIA HIGHWAY COMMISSION**

EARL LEE KELLY, Chairman, Redding

HARRY A. HOPKINS, Taft

TIMOTHY A. REARDON, San Francisco

PHILIP A. STANTON, Anaheim

FRANK A. TETLEY, Riverside

C. H. PURCELL, State Highway Engineer, Sacramento

ERIC CULLENWARD, Secretary

HUGH K. McKEVITT, Attorney, San Francisco

**HEADQUARTERS STAFF, SACRAMENTO**

G. T. McCOY, Principal Assistant Engineer

L. V. CAMPBELL, Office Engineer

T. E. STANTON, Materials and Research Engineer

FRED J. GRUMM, Engineer of Surveys and Plans

C. S. POPE, Construction Engineer

T. H. DENNIS, Maintenance Engineer

CHAS. E. ANDREW, Bridge Engineer

R. H. STALNAKER, Equipment Engineer

E. R. HIGGINS, Chief Accountant

**DISTRICT ENGINEERS**

F. W. HASELWOOD, District I, Eureka

H. S. COMLY, District II, Redding

CHARLES H. WHITMORE, District III, Sacramento

J. H. SKEGGS, District IV, San Francisco

L. H. GIBSON, District V, San Luis Obispo

E. E. WALLACE, District VI, Fresno

S. V. CORTELYOU, District VII, Los Angeles

E. Q. SULLIVAN, District VIII, San Bernardino

F. G. SOMNER, District IX, Bishop

R. E. PIERCE, District X, Sacramento

General Headquarters, Public Works Building,  
Eleventh and P Streets, Sacramento, California

**DIVISION OF WATER RESOURCES**

EDWARD HYATT, State Engineer, Chief of Division

J. J. HALEY, Jr., Administrative Assistant

HAROLD CONKLING, Deputy in Charge Water Rights

A. D. EDMONSTON, Deputy in Charge Water  
Resources Investigation

R. L. JONES, Deputy in Charge Flood Control and  
Reclamation

GEORGE W. HAWLEY, Deputy in Charge Dams

SPENCER BURROUGHS, Attorney  
EVERETT N. BRYAN, Hydraulic Engineer, Water  
Rights

A. N. BURCH, Irrigation Investigations

H. M. STAFFORD, Sacramento-San Joaquin Water  
Supervisor

GORDON ZANDER, Adjudication, Water Distribution

KATHERINE A. FEENY, Chief Clerk

MABEL PERRYMAN, Secretary

S. T. HARDING, Irrigation and Special Investigations

**DIVISION OF ARCHITECTURE**

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P. T. POAGE, Assistant Architect

W. K. DANIELS, Deputy Chief of Division

**HEADQUARTERS**

H. W. DeHAVEN, Chief Architectural Draftsman

C. H. KROMER, Structural Engineer

CARLETON PIERSON, Specification Writer

C. O. PALM, Chief Clerk

C. E. BERG, Engineer, Estimates and Costs

J. W. DUTTON, General Superintendent Construction

W. H. ROCKINGHAM, Mechanical Engineer

C. A. HENDERLONG, Assistant Mechanical Engineer

W. M. CALLAHAN, Electrical Engineer

**DIVISION OF MOTOR VEHICLES**

FRANK G. SNOOK, Chief

E. RAYMOND CATO, Superintendent of California  
Highway Patrol

**DIVISION OF CONTRACTS AND  
RIGHTS OF WAY**

C. C. CARLETON, Chief

**DIVISION OF PORTS**

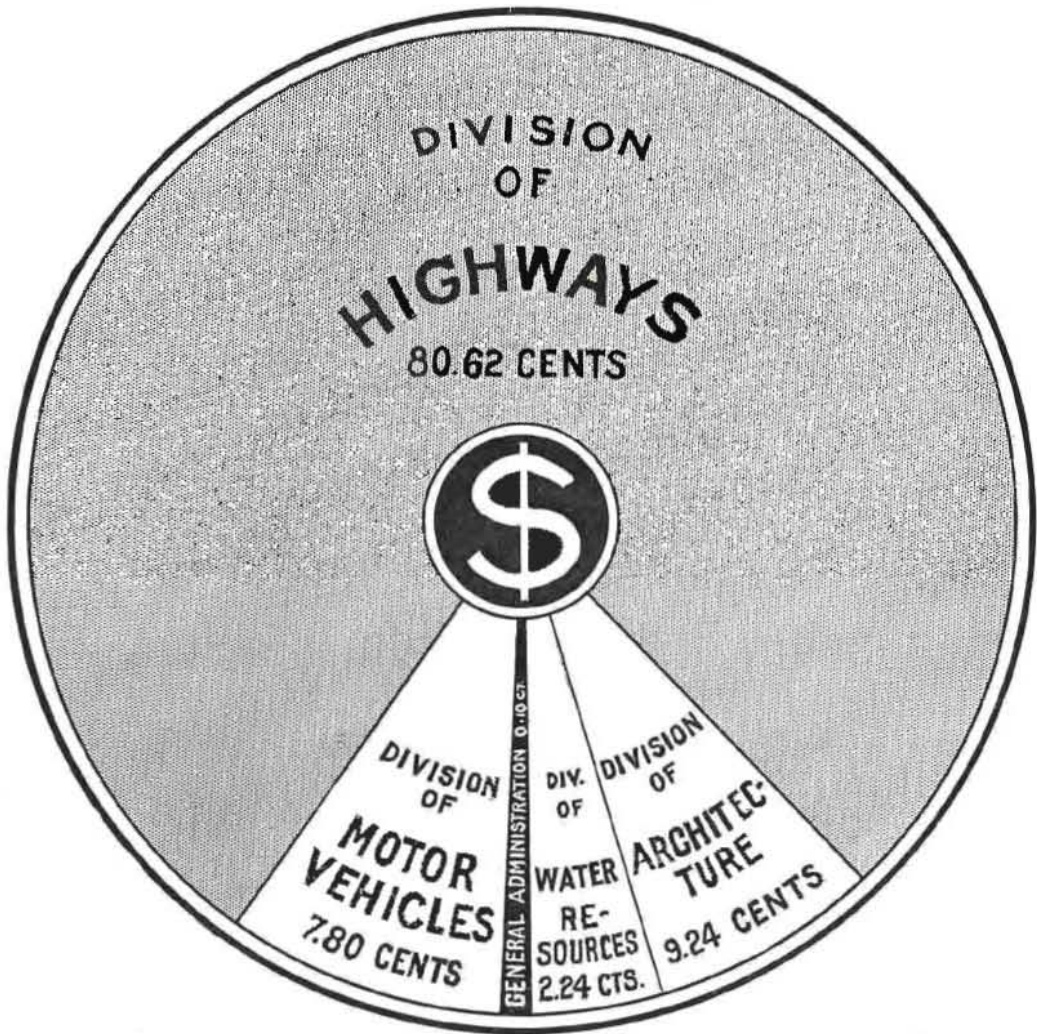
Port of Eureka—William Clark, Sr., Surveyor

Port of San Jose—Not appointed

Port of San Diego—Edwin P. Sample

# How your Dollar is spent

By the  
State Department of Public Works



			Per cent
General Office Administration.....	-----	\$40,000 00	0.10
*Division of Architecture.....	-----	\$3,690,000 00	9.24
Division of Water Resources.....	-----	\$95,000 00	2.24
Division of Ports.....	-----	\$3,050 00	---
Division of Motor Vehicles.....	-----	\$3,115,500 00	7.80
Registration.....	\$1,496,000 00	-----	\$3 75
California Highway Patrol.....	\$1,619,500 00	-----	\$4 05
Division of Highways.....	-----	\$32,208,555 74	80.62
Administration.....	\$1,035,178 57	-----	\$2 59
Maintenance.....	\$5,472,452 59	-----	\$13 70
Construction and Reconstruction.....	\$25,698,924 58	-----	\$64 33
Totals.....	-----	\$39,950,105 74	100.00

\* Includes special appropriations for permanent improvements, expenditures, supervised by the Division of Architecture.

This analysis is of expenditures for year ending June 30, 1931.